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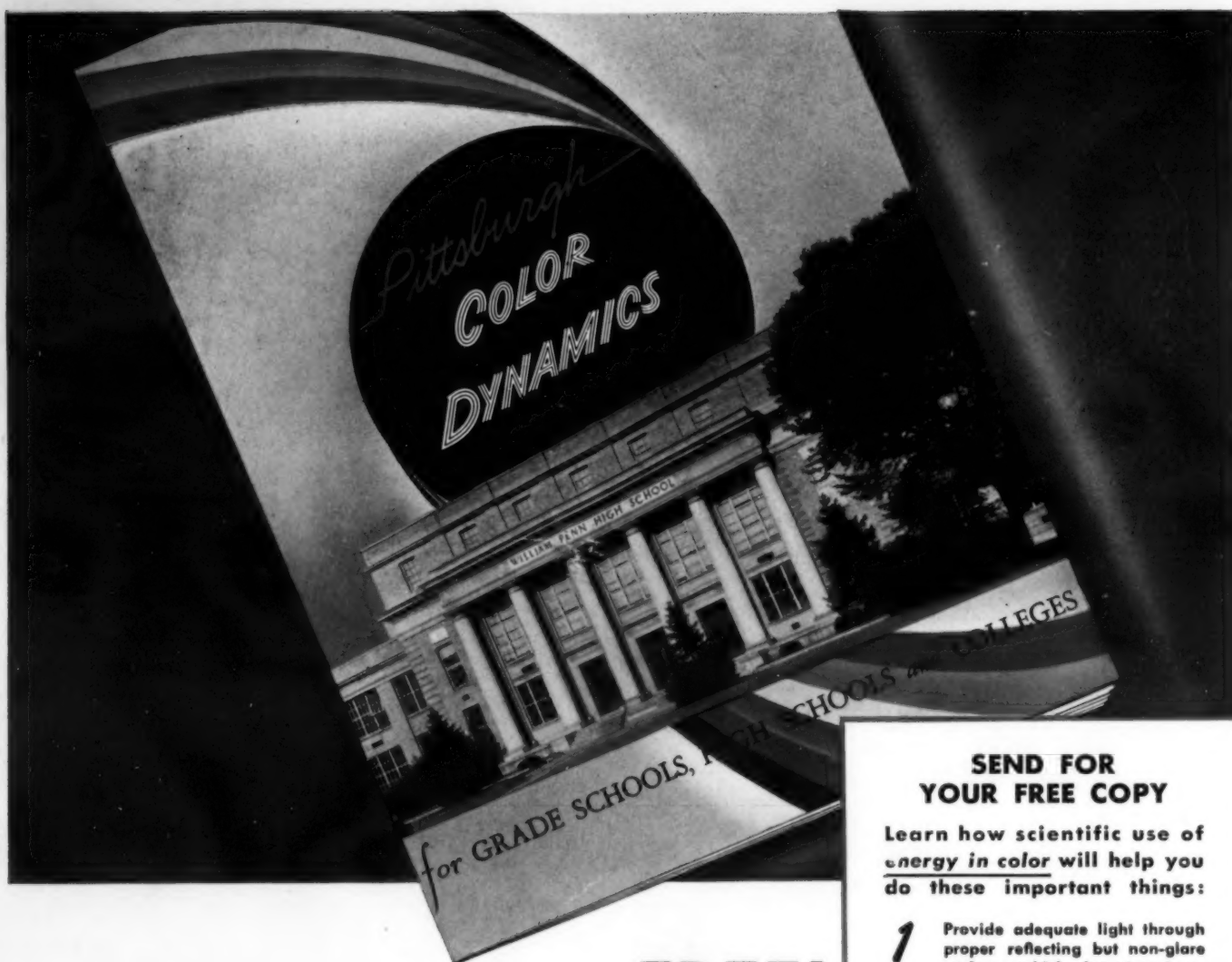
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On the School Ways

Peacetime school operation is ready for the "take-off" with the opening of schools in September for the beginning of a new era of educational activity. The nation is looking to the schools for great service and accomplishment in the social, economic, and business life of the nation.

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J. J. KRILL

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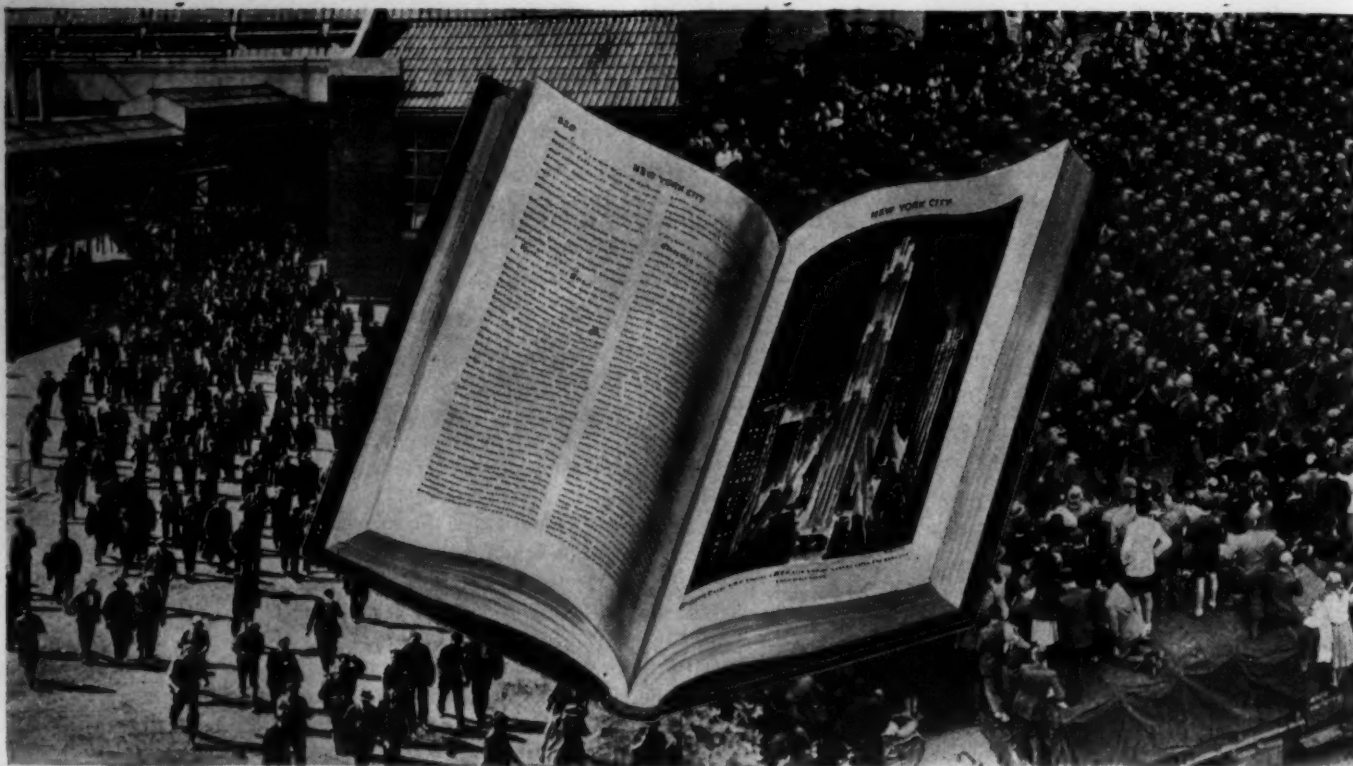
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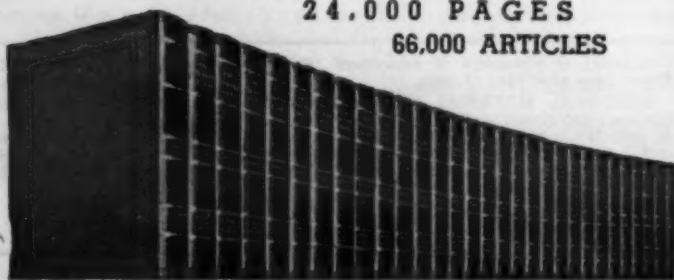
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THE AMERICAN School Board Journal

Volume 111, No. 3

SEPTEMBER, 1945

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An Evaluation of Sources of Revenue for Public Education

C. Ward Macy¹

Adequate financial support for public elementary and secondary schools, as well as for certain institutions of higher learning, is essential to the development and maintenance of a system of education that approximates the ideal. There is little to contest the view that an educated citizenry is more desirable than one steeped in ignorance; that education "tends to increase production by making the worker more intelligent and trustworthy,"² and that the social and cultural, in addition to the economic, standards of the community are raised through the proper functioning of educational processes. Over a century and a half ago Adam Smith referred to the purely economic significance of educating citizens in the following manner: "The more they are instructed, the less liable they are to the delusions of enthusiasm and superstition which, among ignorant nations, frequently occasion the most dreadful disorders."³ In the light of recent world events, this statement is of particular current importance. But the selection of desirable sources of revenue to support public education continues to be an issue of controversial nature.

In an attempt to evaluate sources of revenue for any public project, it is necessary to establish canons by which to judge. The nature and purposes of the project must be borne in mind in selecting the criteria. With respect to education it has been aptly said that the institution of public education is one of the results of the recognition of solidarity of social interests. The method of financing public education is a natural concomitant of the social advantages to be derived from its universal use. Social gains obtainable from education are dependent to a significant degree upon the program for its financing. Serious impediments to the fullest development of

human resources may result from a failure to finance public education in a manner most conducive to general welfare. It was said two decades ago that the educational crisis "is in its last analysis a financial crisis. In its presence we are confronted first by the demand that it be met, second by the query how."⁴ At this date the query has not been satisfactorily answered.

An additional aspect of educational finance not to be ignored is the practical nature of the problem of acquiring needed revenue. Care must be exercised to avoid utopian plans based upon a visionary idealism which is beyond the realm of attainment.⁵ The distinguished English economist, Alfred Marshall, warned that one "must nourish the ideal in his heart; but his actions . . . and . . . his thought must be occupied mainly with the actual."⁶ It must be recognized today that the problems of financing education are actual, not hypothetical, and that support must be sought from sources which are possible to tap.⁷

Three Basic Criteria

Taxes levied to finance education must meet the requirements of productivity,

economy, and justice if they are to function in a manner which will promote general welfare. Other canons of lesser importance; e.g., elasticity, certainty and convenience, are often listed by fiscal authorities as requisites of a good tax system. But if the three major criteria stated above could be met, there would probably be little difficulty in connection with the minor ones.

For self-evident reasons, emphasis must be attached to the canon of productivity, or fiscal adequacy, inasmuch as the production of revenue is the fundamental aim of any tax levied for fiscal purposes.⁸ Productivity rests upon practical prudence, and among the canons it "is after all the one that can never be neglected."⁹ Admittedly it is of prime importance to determine "how a tax system is to be constituted which will afford the requisite amount of revenue."¹⁰ We need to be reminded, however, that "no tax system can be judged solely by its capability to furnish requisite revenue."¹¹ This reminder is especially pertinent when revenue sources for public education are under consideration. A general sales tax, or special sales taxes on gasoline, tobacco, or other commodities, may appear attractive as means of financing public education if they are viewed only from the standpoint of their power to produce revenue.¹² But evaluated in the light of economy and justice, they are entirely undesirable. Obviously the vital need for funds to support education warrants special attention to the canon of

¹Swift, F. H., "State Policies in Public School Finance," *Bulletin of the United States Bureau of Education*, No. 6, 1922, p. 3.

²Even Aristotle advised that "In framing an ideal, we may assume what we wish, but we should avoid impossibilities." Cf. *Politics*, Bk. II. Translation by Benjamin Jowett (Oxford: Clarendon Press, 1916), p. 6. T. S. Adams, past president of the American Economic Association, warns that ideals in taxation must be attainable if they are to serve a useful purpose. See his "Ideals and Idealism in Taxation," *American Economic Review*, Vol. XVIII, No. 1, p. 4 ff.

³Pigou, A. C., editor, *Memorials of Alfred Marshall* (London: Macmillan, Ltd., 1925), p. 84.

⁴Because of the nature and purposes of public education, a strong case may be presented on paper favoring taxes on the surplus elements of income as means of its financing. See Hobson, John A., *Taxation in the New State* (New York: Harcourt, Brace and Howe, 1920), Chap. II for discussion of these surplus elements. Or it might be argued that one surplus element in particular; e.g., the economic rent on land, is a suitable source of revenue for a socially beneficial project such as public education. But granting the desirability of these contentions, there would remain the administrative problem of distinguishing between surplus elements and cost elements. To the writer's knowledge, this practical problem has never been satisfactorily solved.

⁵If the exclusive purpose of a tax is to exercise control, as in the case of the 10 per cent levy in 1865 on state bank note issues, it is apparent that no revenue is expected.

⁶Bastable, C. F., *Public Finance*, 3rd rev. ed. (London: Macmillan, Ltd., 1903), p. 417.

⁷Daniels, W. M., *The Elements of Public Finance* (New York: Henry Holt and Co., 1899), p. 92.

⁸This opinion was expressed by Adolph Wagner, quoted in Daniels, *ibid.*, p. 93.

⁹Among the sources of revenue recently suggested to support a needed state aid program in Iowa is a liquor tax. Although this proposal has not been considered seriously it is a cause for some concern that a special excise of this kind has even been mentioned as a means of financing public education.

¹⁰Of the Department of Social Studies, Coe College, Cedar Rapids, Iowa.

¹¹Shirras, G. Findlay, *The Science of Public Finance* (London: Macmillan, Ltd., 1924), p. 65.

¹²Smith, Adam, *The Wealth of Nations*, Vol. II, Cannan's, 2nd ed. (London: Methuen, Ltd., 1920), p. 272.

productivity; but the importance of this criterion should not overshadow the significance of economy and justice.

Economy in taxation has a twofold meaning. In order to meet this canon, taxes, in the first place, must be administered efficiently; and second, they must have the least possible repressive effects upon the functioning of the economic system.¹³ In so far as economy relates to minimum cost of administration, the term is easy to comprehend. It goes without saying that a high degree of efficiency in levying and collecting taxes is desired. But when the indirect effects of taxes are considered, the problem grows complex. It has long been recognized that taxes should not put to flight the wealth which they strike and that their remote consequences should be weighed with care.¹⁴ It is difficult, however, to determine the manner in which taxes depress business and the degree to which economic activity is retarded by various levies.

An issue of paramount importance in an attempt to measure the indirect effects of taxes is their incidence. The ultimate burdens of some taxes rest at the points of impact. In other cases the burdens are shifted forward or backward through the process of pricing so that their final resting places can hardly be determined. One objective in formulating a tax program should be that of minimizing the total sacrifice of taxpayers. It is apparent that no progress can be made toward this goal in the absence of analysis of the incidence of proposed taxes. Since it is possible to give intelligent consideration to the probable indirect effects of particular taxes used to finance public education only if the incidence of the levies is fairly well established, direct taxes, notably those on net incomes whose burdens tend not to be shifted, are more acceptable from the standpoint of economy than are indirect taxes whose incidence is less clear.

The Difficult Problem of Justice

Justice as a canon of taxation involves more controversy than either productivity or economy. Although justice is difficult to define and thus to attain, this fact "does not absolve us from all effort making for approximate justice."¹⁵ As a philosophical concept it is "such an adjustment of the conflicting interests of the citizens of a nation as will interfere least with, and contribute most to, the strength of the nation."¹⁶

The relative merits of the theories of benefit received and ability-to-pay are involved in the issue of justice in taxation.¹⁷ The former has a role to play as a basic

principle underlying taxation for certain purposes. A gasoline tax, for example, whose proceeds are used entirely for the building and maintenance of roads, is based upon the benefit theory, and its extensive use for these purposes is warranted. This theory has only limited application, however, in educational finance. In the first place, benefits derived from public education cannot be accurately measured; and second, if it were possible to apply this principle effectively, it would prove to be regressive in its operation in view of the fact that the poor may receive as much benefit as the rich and thus would be required to contribute as much to the support of an educational program. The wide acceptance of the ability-to-pay principle in preference to benefit indicates "the cause of development from the egoistic, individualistic conception of equity to the conception of solidarity."¹⁸ Social expenditures, such as those for education, confer benefits on the poorer people which they would have to forego if they were required to pay the price for the service.¹⁹

Unanimity of opinion regarding the best objective measurement of ability to pay is lacking. Both wealth and income are usually cited, with greater importance attached to one or the other. It has been stated that income "is surely a good, if not the best, indication of economic welfare,"²⁰ and that the "ability of a community to satisfy its economic wants rests ultimately upon its income."²¹ On the other hand it has been argued that aggregate wealth is a particularly significant factor in the determination of the ability of a state to support public education.²² In the formative period of the American economy, wealth bore a fairly constant relation to income which fact accounted for the almost universal early use of the property tax, especially for the support of education. But with the development of the country, incomes came more and more to result from personal services rendered without relationship to the ownership of wealth. As a consequence it is now necessary to direct special attention to income in an effort to measure the ability of individuals to pay taxes.

Revenue to support the functions of state and local government in the United States is derived principally from three general sources; namely, property taxes, income taxes, and various forms of consumption taxes. The many miscellaneous

sources of funds are relatively unimportant in most states. Although it is not a common practice for the various states to earmark receipts from income and consumption taxes for educational support, these taxes nevertheless often contribute to general funds from which appropriations for schools are made. It is in order, therefore, to evaluate property, income, and consumption taxes in the light of the canons of productivity, economy, and justice.

Property Tax for Local Schools

The general property tax has been extensively employed in this country, especially by local districts, to finance public schools. Property is usually classified for taxation purposes with certain types e.g., intangibles, being taxed only by the state authority. The local property taxes are chiefly levies on realty and other tangibles, and they continue to be the most important source of revenue for local educational support.

Viewed from the standpoint of productivity, local taxes on property make a fairly favorable showing. With reasonable restraint exercised over expenditures, property taxes can be adjusted to yield the needed revenue. If the rates become exorbitant, reliance on these taxes may have disastrous consequences in the long run, but for immediate purposes of obtaining adequate funds they have a distinct appeal.

When subjected to examination in the light of economy, property taxes are vulnerable at many points. The total costs of levying and collecting these taxes are not likely to be excessive in proportion to receipts. But faulty methods of assessment, caused by lack of centralized control, often result in an unequal distribution of the tax burdens among owners of different types of property as well as among owners of similar types. This administrative weakness is largely responsible for excessive burdens which fall on some property owners and is one reason why the canon of economy is often violated.

Even if assessment methods were to be improved, there would still remain the problem of the incidence of property taxes to be considered in an attempt to determine the indirect effects of these levies. If the property tax were solely a tax on land exclusive of its capital improvements, it would not be shifted.²³ But when buildings and other forms of improvements are subjected to taxation, as is customary, it is more difficult to determine where the burdens ultimately fall.²⁴ In the long run a tax on improvements tends to be borne by the user, who may be a tenant. It should not be assumed, therefore, that the burden

¹³Cohn, Gustav, *The Science of Finance*, Veblen's Translation (Chicago: University of Chicago Press, 1895), p. 299.

¹⁴This view is stated clearly in Stamp, Josiah, *The Fundamental Principles of Taxation in the Light of Modern Developments* (London: Macmillan, Ltd., 1929), p. 7.

¹⁵Leven, Maurice, *Income in the Various States* (New York: National Bureau of Economic Research, 1925), p. 43.

¹⁶Russell, W. F., and Others, *Report of the Educational Finance Inquiry Commission*, Vol. VIII (New York: Macmillan and Co., 1925), p. 129.

¹⁷Cf. Norton, J. K., *The Ability of the States to Support Education* (Washington: The National Education Association, 1926), p. 3.

²³It is claimed that to "the extent that our land tax is a part of the general property tax, it cannot possibly be shifted." Cf. Seligman, E. R. A., *The Incidence of Taxation*, 5th ed. (New York: Columbia University Press, 1925), p. 271. This view is widely accepted among fiscal theorists.

²⁴See *ibid.*, p. 293; also Seligman, *Economics of Farm Relief* (New York: Columbia University Press, 1929), p. 145.

¹³This interpretation of economy in taxation was made classic by Smith, *op. cit.*, pp. 311-312.

¹⁴Writers of many periods and diverse economic philosophies have stressed the importance of the indirect effects of taxes.

¹⁵This opinion is expressed by Daniels, *op. cit.*, p. 80.

¹⁶Carver, T. N., *Essays in Social Justice* (Cambridge: Harvard University Press, 1915), p. 9.

¹⁷Weston, S. F., *Justice in Taxation* (New York: Columbia University Press, 1903), p. 72.

of the tax on tangible property always rests at the point of impact, or on the owner. For this reason considerable speculation is involved in an effort to measure the final effects of this tax. The burden may be especially heavy in some cases, leading to reduced consumption or less saving. In other cases, the tax may have no significant effect on consumption or savings. Thus as a suitable means of minimizing total sacrifice, the property tax is found wanting.

Early Property Taxes Were Just

As pointed out above justice in taxation for educational purposes is best obtained if taxes conform to the ability-to-pay principle. In a primitive day when there were no great inequalities of fortune, when economic life was not much diversified, and when wealth was mostly in land, property was a fair representation of ability to contribute to the support of government.²⁵ But today, according to one critic, property is not a satisfactory index of tax-paying ability, and "the general property tax has become, so to speak, a sacrosanct idea, a shibboleth, something to conjure with."²⁶ This condemnation may be extreme, but the failure of property taxation to meet the ability-to-pay criterion is widely recognized. All property of a certain classification within a district is subject to the same rate of taxation regardless of its capacity to yield income. Assessments are seldom made on the basis of income producing capacity. A uniform levy on uneven assessments is a direct violation of justice in so far as the ability-to-pay principle is concerned.

Within restricted limits the benefit principle can be properly employed in local educational finance. Property owners receive some direct benefit from a good system of education by way of enhanced values of their holdings resulting from the existence of high grade schools. This type of benefit is not subject to accurate measurement, but it is nonetheless reasonable to expect property owners to bear a part of the costs of education. The glaring weakness in the past has been the tendency to throw almost the entire burden of local school costs on those who ultimately pay property taxes. Unfortunately these are not always the owners of the property. To the extent that state aid programs have developed to supplement local school revenues, the use of property taxes is less objectionable. Help is thus received from state general funds whose revenue is likely to be obtained from sources more in harmony with the ability-to-pay principle.

The main argument in support of the property tax for educational purposes is, therefore, its power to produce revenue. On



Happy to Return to School.

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grounds of economy and justice this tax does not warrant its present prominence in educational finance. Its continued use on a modified scale is doubtless necessary, but improvements in assessment procedure and greater attention to its indirect consequences are demanded in the interests of economy and justice.

Income Taxes Best for States

The net income tax as a source of state revenue had its American beginning in 1913 in Wisconsin. It "originated in an effort to find an equitable and efficient method of personal taxation,"²⁷ and its use has become widespread since that time. It is generally held that the income tax is not adaptable to governmental divisions smaller than the state. But as a means of obtaining funds for state government to be distributed in part to local districts for educational purposes, the income tax may serve as a substitute for some of the unsatisfactory features of property taxes. Taxes may be levied on incomes of individuals, of corporations, or of both.

The productivity of a state income tax depends upon the amount of taxable income available and the scale of rates

imposed.²⁸ In the final analysis all taxes must be paid out of income and, if a direct tax on income is levied as a replacement for property levies, taxpayers as a whole will pay no more than before. It is claimed that state income taxes are particularly burdensome because the same income is subject to taxation by the Federal Government. But this contention is not valid if income taxes provide relief from other state and local taxes. Levies on incomes can be made to produce needed revenue as effectively as other taxes, all of which are ultimately paid out of income.

Viewed from the standpoint of economy, state income taxes appear in a favorable light. They tend to be economically administered and their indirect effects are not harmful to the functioning of the economic order when the rates are not high enough to be seriously repressive. Taxes on net incomes are not shifted and it is possible, therefore, to weigh accurately the consequences of levies. It is a popular belief that corporate income taxes cause prices to be

²⁵For a discussion of this view, see Weston, *op. cit.*, p. 176.

²⁶Seligman, E. R. A., "How May the Necessary Funds for Public Education Be Provided?" *Proceedings, National Education Association*, Vol. LX, 1922, p. 1389.

²⁷Adams, T. S., "The Wisconsin Income Tax," *Political Science Quarterly*, Vol. XXVIII, No. 4, p. 569.

²⁸There are great variations in rates and receipts from state income taxes. In 1942, 34 states levied taxes on incomes of individuals, of corporations, or of both. A total of 561 million dollars was obtained. The receipts in New York were 178 million dollars; in South Dakota, only 631 thousand dollars. See Federation of Tax Administrators, *Recent Trends in State Revenues*, Research Report No. 16, appendix p. III.

increased and that the burdens are thus shifted to consumers. But economic analysis lends little support for this contention.²⁹ It is admitted that income tax rates may be so steeply progressive that they dry up sources of future revenue, and thus fail to meet the canon of economy. This charge is currently made against the federal taxes on corporate income. But state rates are usually held at more reasonable levels. At such levels they produce substantial revenue.

When evaluated in the light of justice, the net income tax has distinct advantages over other tax sources of revenue for the support of public education. As stated above net income is the best measure of ability-to-pay, a principle particularly suited to educational finance. The benefit principle has a minor role to play in so far as the property tax is concerned, but a more extensive use of net income taxation should be made in the interest of justice. This source of revenue should be widely adopted by states as a means of obtaining funds to be distributed to needy local school districts, and thus to effect a greater equality of educational opportunities throughout each state.

Consumption Taxes Productive But Not Just

Consumption taxes most widely employed by states are general and selective sales taxes. As in the case of the income tax, these levies are usually made by the state, rather than by local taxing districts. They have grown in popularity during the past two decades, and particularly during the depression years of the early thirties.

Probably the chief argument in favor of consumption taxes is their capacity to produce revenue. This is especially true of general sales taxes which include levies on all goods sold at retail, at the common rates of 2 or 3 per cent. While the receipts from such taxes vary with general business conditions, they tend to fluctuate less than income taxes especially where sales of necessities are subject to taxation. There is no denying the capacity of general sales taxes to produce revenue.³⁰ Selective levies are less productive, the degree of difference being determined by the nature of the demand for the commodities chosen for taxation.

In view of the fact that much of the labor of collecting sales taxes is performed by sellers, the costs of administering these taxes tend to be low. But this economy feature of sales taxes is offset by unfavorable indirect consequences of the levies. Although under certain conditions

the incidence of sales taxes may be upon the seller, the tendency is for the burdens to be shifted to consumers through the process of pricing. The effect is thus to restrict purchases which in turn will cause a reduction in production. The extent of the repressive effects upon the functioning of the economy is difficult to measure, but there is little reason to believe that sacrifices of taxpayers are minimized through the operation of consumption taxes. The apparent ease of payment clouds the issue of determining the ultimate sacrifice on the part of consumers as well as the probable significant repressive effects upon the economic system as a whole.

The most serious indictment against consumption taxes is on grounds of justice. Rates of taxation imposed are uniform. In operation they become regressive in that higher percentages of small incomes are necessary to pay general sales taxes than in the case of large incomes. Regressivity is less pronounced in selective sales taxes than in general levies, but it still is much in evidence. This feature of commodity taxation is a direct violation of the ability-to-pay principle. Moreover a commodity tax, if used to finance education, does not conform to the benefit principle. Sales taxes are concessions to expediency, and cannot be defended as just means of obtaining revenue for a socially beneficial public project such as education. This conclusion holds for both general and selective

sales taxes, although the latter may be used for certain special purposes, e.g., the building and maintenance of highways, without flouting the canon of justice in taxation.

When examined objectively in the light of acceptable canons of taxation, the following conclusions regarding the use of property taxes, income taxes, and consumption taxes for the support of public education are warranted:

1. The property tax must continue to be used as the chief source of funds to be raised directly by local school districts. Correction of faulty assessment practices would eliminate some of the present weaknesses of this tax. But primary dependence on local financial support for education is objectionable and almost universally condemned by educators. The solution to this problem lies in more state aid.

2. State funds to be distributed to local districts should be obtained chiefly from income taxes which meet the canons of taxation in a satisfactory manner. Relief to overly burdened taxpayers in local districts could thus be provided in an economical and just manner.

3. Although pressure for consumption taxes is strong, it should be resisted because this form of taxation has no justifiable place in the educational finance picture. Taxes which rest finally on consumers cannot be defended as means of raising revenue for public schools.



Representing 30,000,000 American school children, two students from the District of Columbia made the official Schools-at-War report for the past school year to President Truman as Commander in Chief of all the Armed Forces. Since September, 1944, 19,814 planes, jeeps, ambulances, landing craft, etc., have been sent into action bearing the War Bond sponsorship panel of schools.

²⁹For a discussion of this view, see Macy, C. Ward, "The Corporation Net Income Tax and the Cost-Price Structure," *Bulletin of the National Tax Association*, Vol. XXIX, No. 8, pp. 231-234.

³⁰Indicative of the productivity of the general sales tax is the experience of California. In 1942, the receipts from this tax totaled 129 million dollars. The net income tax in California produced 72 million dollars in the same year. Wyoming, a sparsely populated state, obtained 2½ million dollars from sales taxes in 1942. See *Federation of Tax Administrators*, *op. cit.*, appendix, pp. III-IV.

Less Departmentalization in the Elementary Schools *Thomas C. Prince¹*

There are fewer school systems and fewer schools using the departmental and platoon form of organization for instruction in the elementary schools of America today than there were four years ago, if a survey made by the writer this year accurately represents the present situation.

Back in 1941 and during the early months of 1942 the writer and his associates endeavored to determine to what extent departmentalization was used, and what changes were taking place in elementary organization. Questionnaires were sent to the superintendents of 200 city school systems, and 154 replies were received. A study of the returns seemed to show that there was a swing away from departmentalization.² This year the writer again attempted to measure the trends and to do so sent out questionnaires in the form of "Yes" and "No" statements to the superintendents of the 154 school systems participating in the 1942 study. One hundred and thirty-two replies were received, a response of 85 per cent.

In this year's questionnaire, six of the statements were designed to determine present usage and two to elicit the opinions of the superintendents.

Practice

Replying to the first question, as to whether a departmental form of organization had been used in past years, 43 superintendents³ reported there had, and 72 stated there had not.

Thirty-five superintendents said departmentalization, with special teachers for music, art, health, reading, and other subjects in grades 3 to 6 inclusive, was still in use, while 68 checked "No."

The third statement was, "Since 1941, departmentalization in our system has, (a) increased, (b) decreased, (c) been eliminated." Eight of the 104 superintendents responding indicated that the use of departmentalization had increased, 46 (44 per cent) that it had decreased, and 25 that it had been eliminated. Twenty-five wrote in the word "same." Not counting these "sames" either way, apparently 68 per cent of the public school systems represented have decreased or discontinued the use of departmental schools. Letters and marginal comments accompanying the returned sheets would seem to reveal that in several systems departmentalization has even been taken out of the junior high school levels (grades 7-9).

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²A summary was published in the *SCHOOL BOARD JOURNAL*, June, 1943, issue.

³Superintendents or persons to whom responsibility for replying was delegated.

The fourth statement, or question, concerned the platoon type of organization, defined as, "one teacher for all 'fundamentals' and other teachers for the special subjects." Superintendents were asked to indicate whether the use of this plan had increased, decreased, or been eliminated since 1941. Seven reported an increase, 32 a decrease, 25 elimination, while 25 wrote in "same" and 24 "none."

The fifth statement, "Since 1941, the number of persons teaching health only in grades 3-6 inclusive has, (a) increased, (b) decreased, (c) none used," was answered by 105 superintendents. Twelve of them checked "increased," 16 "decreased," 60 "none used," and 17 wrote in "same."

The purpose of the sixth question was to determine the increase or decrease in the employment of persons teaching music and/or art only in grades 3-6, since 1941. Twenty-seven superintendents reported increases, 30 decreases, 32 none used, and 40 added "same." There were a number of marginal notations explaining that special music and art teachers and supervisors were provided in addition to the straight grade or "regular room" teachers.

Superintendents' Opinions

Statements 7 and 8 in the questionnaire were designed to ascertain the opinions of school system heads as to the effectiveness of several types of elementary organization and whether health should be taught by specialists in grades 3-6.

Number 7 was worded, "I believe that the type of organization checked below is the most effective when properly used in promoting the desired educational growth of children in grades 3-6, inclusive: (a) straight grade, (b) semistraight grade (one teacher for all subjects except art and/or music), (c) departmental (a 'specialist' for each subject, as art, music, reading, arithmetic, health, etc.), (d) platoon (one teacher for so-called 'fundamentals' and specialists for art and music)." Each statement was followed by yes and no squares.

Fifty-six of the superintendents responding indicated a preference for the straight grade, while 20 checked "no"; 59 marked "yes" for semistraight grade and 20 "no"; only 5 favored a departmental form of organization, 44 checking "no." These 44 school system leaders constituted 89 per cent of those replying to this question, and this is possibly the most significant finding in the study.

Seventeen superintendents believed a platoon-type organization most effective, while 38 (84 per cent) did not.

The eighth statement was, "Health

should be taught by specialists in grades 3-6." Of the 116 superintendents who checked this question, 11 marked "yes" and 105 "no."

Population Groupings

As in the previous study (1941-1942), arbitrary population groupings were used, consisting of six classifications: (1) over 500,000, (2) 200,000-500,000, (3) 100,000-200,000, (4) 50,000-100,000, (5) 25,000-50,000, (6) under 25,000 but over 5000.

In examining the findings from these distributions, more exceptions were found than in the former survey. The superintendents in group 1 reported an equal number of increases and decreases in departmentalization, and a slight increase in the use of special health teachers (7 systems). The number of persons teaching health only increased in group 2 and a slightly larger proportion of superintendents expressed a preference for the straight grade form of organization. In this classification the opinions were equally divided on the advisability of the platoon plan.

There were more deviations in group 3 (100,000-200,000) than in any of the other classifications. Superintendents here reported greater proportionate decreases in departmentalization (8 to 1) and a relatively larger number of eliminations of this form of organization. Three superintendents checking the fifth statement indicated an increase in the use of special health teachers, two a decrease, and 16 stated that none were used. In this group, too, an increase in the number of persons teaching music and/or art was shown. However, in expressing their opinions, the 21 system heads reporting were almost unanimous in their opposition to departmentalism and the teaching of health by specialists.

The most pronounced drift away from departmentalization was found in the fourth population group. Decreases outnumbered the increases by a ratio of 14 to 1, and 11 eliminations were listed for each increase. In this division, also, the greatest proportion of decreases in, and eliminations of the platoon plan took place. Of 31 superintendents checking the eighth statement, only 2 indicated that health should be taught by specialists; 29 said "no."

There were but 3 exceptions to the composite trends in group 5, and these were all related to questions of opinion. An unusually high percentage of the superintendents participating preferred a straight grade or semistraight grade organization and were opposed to the teaching of health by specialists (the per cent was 88 plus).

The platoon movement was found to have its strongest support in group 6 (cities with populations under 25,000). The number of increases equaled the number of decreases, and twice as many superintendents preferred it as were opposed to it. In this classification the semistraight grade was favored over the straight grade and a smaller number of school system heads opposed the use of health specialists (5 for, 19 against) than in the other population groupings. The largest ratio of increase (6 to 1) in the number of music and art teachers also came in this group.

Geographical Trends

The 1941-1942 study showed few sectional variations from the general trends, but in this year's survey these were more numerous and pronounced. The sharpest decreases in departmentalization and the platoon plan appear to have taken place in the Middle Atlantic, South Atlantic, Rocky Mountain, and Pacific coast states, with the opinions of the superintendents running strongly in favor of the straight grade, and heavily against the departmental and platoon organizations and the teaching of health by specialists. In the South Atlantic states, both by checking and by means of marginal comments the superintendents indicated a slight increase in the use of special music and art teachers.

Both the departmental and platoon types of organization seem to be strongest in the central states—northwest, northeast, southeast, and southwest central states. In these sections departmentalization has increased slightly, and the platoon school has held its ground. A majority of the superintendents in these areas evidently lean to the straight grade, however, but fewer oppose departmentalization and the rotation of elementary pupils.

The results of the survey would seem to indicate that in New England the opinions of the superintendents conform rather closely to the general pattern of the 132 cities, but present practice differs. A slight increase in departmentalization has taken place since 1941, but there has been a recognizable growth of the platoon movement and in the use of special music, art, and health teachers.

Some Conclusions

If it can be assumed that this survey measured the prevalent practices and the opinions of superintendents with an acceptable degree of accuracy, it would seem logical to conclude, among other things, that, (1) departmentalization on the elementary level continues to decrease, but more rapidly in some sections and population groupings than in others; (2) the platoon plan is also passing out of the educational picture, although at a slower rate, broken by gains in the smaller cities; (3) the use of special music, art, and health teachers' lessons, although there is a slight but noticeable movement in the

opposite direction which may presage an art and music-specialist comeback; (4) a majority of the superintendents of the 132 cities involved believe that a straight grade or semistraight grade type of organization for instruction is preferable to either departmentalization or the platoon plan; (5) there is clear-cut and conclusive opposition

on the part of school system leaders to the teaching of health in the elementary grades by "specialists"; (6) the extent gap between theory and practice grows smaller—but slowly! (7) There appears to be ample evidence of the efforts of superintendents to adjust the type of organization used to the needs of the children.

Shuttling Between School and Shop

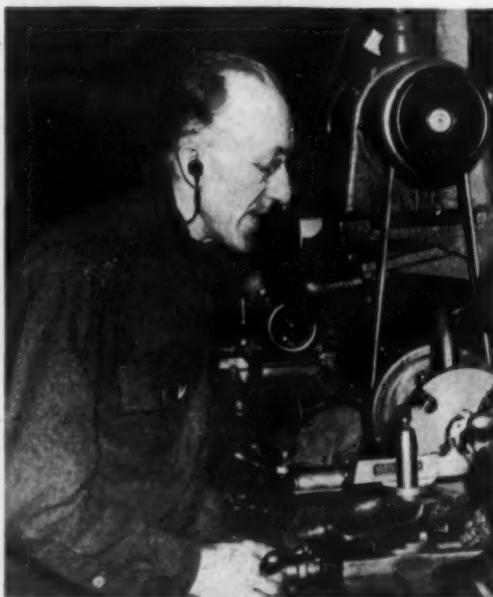
F. R. Powers*

"Co-operative enterprise" is the term which has run through my mind more frequently than any other in the past two years as I have spent many "swing shift" hours in a local screw machine plant, generally in the corner known as the toolroom. That toolmaker's kit has come to respond to my touch about as well as do the typewriter and other office gadgets, and there has come the growing feeling that a very definite relationship does exist between the work of the school and the shop.

For years it had been an ambition to try my hand at certain phases of the toolmaker's art. But young men in the teaching profession are apt to stand too much in awe of that which people may say, and apprentice help seemed not too much in demand anyway. But, as the years pile up, one begins to see that whatever he aims to do must be done before long or not at all, and along with this sort of realization came the unusual demand for shop help to help in the war effort.

It is a pet theory of Dr. Weersing that one of the finest outcomes one can hope for from education in school is not so much a particular skill as it is the ability to shift within the general limits of an occupation or even from one field to a totally different one. His studies had convinced him that that is what one normally has to do anyway. I have thought

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Superintendent Fred R. Powers of Amherst at the lathe.

of that a good deal as there has been urged upon us the developing of intensive skills in special fields and with definite tools. So it was with an inquiring turn of mind that I walked into that toolroom one night with perhaps my chief stock in trade that shift ability plus perhaps added to that a very real interest in finding out what might happen when I turned those many handles on lathes, milling machines, and grinders.

At least two sorts of things happened right away. There in the shop, whenever I turned away from a machine for a few moments and then started back to operate it, the handles were covered with grease—a lot of grease. That in the machine shop is equivalent to the "type lice" the beginner finds in the printing establishment. The other thing happened over at school. I had had no idea that anybody could be so concerned with as small a thing as a thousandth of an inch.

We worked out a very substantial unit in our eighth grade delving into the mysteries of those thousandths and carried it on through the shop and mathematics classes in the high school. The across-town shop was more than willing to furnish us with sets of micrometers, including a very large demonstration instrument. In several places about the school building there appeared large charts of those decimal equivalents of common fractions of the inch. As usual, it seemed as though a very simple mathematical relationship had been mastered only a little.

Very soon at the shop folks began to come to me, the school teacher, with more profound problems of mathematics. How, for example, would one determine the angle at which a tool should be set to provide a drop, say, of .015 to the inch? Shortly, our high school boys began to perk up on trigonometry, but not before some valuable help had come from an old toolmaker. Perhaps he was in the habit of discovering a triangle relationship by taking "the tangent of the angle times the width of the tool." But he had some excellent charts, copies of which we got for use at the school. Not merely in a formal trigonometry class, but in several mathematics and shop classes about the school, this simple method of solving triangle relationships is being made clear. Shortly a large chart appeared on the wall up in the toolmaker's room and to that chart we toolmakers take our triangle problems for simple solutions.

A few years ago I did not have such elementary knowledge of machines as the fact that lathes have back gears and milling machines have removable arbors, but I find myself now recognized by my school boys in our own shop as an expert performer. During that process from there to here a number of the laws of learning were brought forth for critical examination. I shall

(Concluded on page 86)

The District Meeting in School Government

J. B. Sears*

(Conclusion)

7. To Abandon or to Revise and Adopt These Instruments of Democracy to New Conditions — Which?

In form the most democratic control of schools possible is through the self-operating *district meeting* where legislation is direct by the people. In its most complete use the school meeting calls itself under law, makes all decisions as to policies and plans for the schools and, by law, compels the board to put its orders into effect. It is a bit less powerful if it has to be called by petition of electors and still less where power to call it rests with the board of education. Its power is great or small, also, as the law specifies a large or small area within which it may legislate. It may be great or small, too, as more and more general laws and school laws fix limitations within which the district must operate. Reference here is to tax and bond-limitation laws, laws covering school budgeting, and school laws affecting organization of districts, school organization, the curriculum, health, attendance, etc.

A second method of popular government is that by *elections*. This method appears in many cases to be replacing the district meeting. Its effectiveness is dependent, first, upon what province it may cover; second, upon the ease with which it may be put into operation; and third, upon the ease with which a public opinion may be developed on matters submitted for its decision. Elections could deal with any subject that could be handled in a deliberative assembly of electors, but those voting could not depend upon deliberations as a means of informing themselves as to the best decision. The election method is stronger when it is fixed by law as to time and place than when it depends upon petitioning and upon the board to fix a time and place. It is stronger when the law or the people themselves can dictate subjects upon which they will vote than when such decision is left to the board.

Petitions and Hearings as Democratic Methods

A third method of democracy is available through use of the *petition*, which is strong or weak as the law provides wide or narrow use of it and as it is difficult or easy to utilize. The petition that compels a board to submit a proposition to a vote is a powerful lever, but of little worth if the board can make its own decision as to receiving it. The petition that is complete

with five signatures is apt to be used often, but if the number is ninety, or over half of the electors, it will be used less. The easier it is to bring forth a demand by petition the more likely a board is to keep its actions in line with public wishes.

A fourth method of people's government is by use of *hearings*.³² This method is more effective when it is compulsory by law or on petition, and when advanced notice is required, than when its use is voluntary with the board. Budget hearings are now common and hearings on change of district boundaries and on dismissal of employees and a wide variety of internal problems are becoming so. Its value lies in the opportunity for public questioning of officials and for presenting information that otherwise may be unavailable or, on occasion, kept from the public.

A fifth means of direct participation by the people is by a law requiring the board to keep *records of action taken* and to make *reports* at intervals to the public. To be effective records must be open to the public and readily accessible, and reports must be published on a specified date and meet some specifications as to content.

A sixth method is through requiring *open board meetings*. This is the law now in most if not all our states, and even though it is gotten round by organizing the board as a committee of the whole and meeting in closed session it is apparent that too much abuse through that channel would have the effect of bringing petitions and demands for hearings and open criticisms that would in time unseat the members. Open board meetings will be of greater value if the law also requires that they be held at regular and specified time and place.

A seventh hold of the public on affairs of the school is in a requirement of formal *posted or published notices*, as of elections, district meetings, budget hearings, joint meetings with other boards to consider consolidation of districts, and the like.

Finally, there are the laws of the *initiative, referendum* and *recall*, now widely available in local and state government. At the beginning of this century (South Dakota, 1898) we began seriously to apply these concepts on a state-wide basis, and though they clearly are not panaceas for all the ills of democracy they do give the people a means of direct action in lawmaking. The referendum has always been used in effecting a revision of our constitutions, but the spread of these ideas to all local and to state government in our country is

within this century except for South Dakota.

All These Methods Valuable

It will be seen that of these methods only a few — the district meeting, the election, and the initiative, referendum, and recall provide for direct legislation by the people. All the others, except, for instance, when a petition with a specified number of signatures, or more, has the effect of deciding the issue, are but special means for bringing public opinion to bear upon school business.

All of these methods are being used now in managing our schools but they are used in different combination, to different extent, in different ways, and for different purposes from state to state. Over against this, it is equally clear that the power of the board of education alone to direct the schools varies from power merely to execute school laws as directed by the district meeting and under restrictions of general laws, to almost complete control under law alone — taxation and debt being usual exceptions. Taking our plan as it now operates in all these ways it is providing a wide and rich experience in democracy and could be next thing to an experiment if we would study it adequately. For what purposes are each of these devices being used and under what restrictions and in what combinations? To what degree does each of them provide direct control by the people, and if control is only indirect then what particular principle of control does each device embody? And, not to be overlooked, what abuses of them do we find? Here is a great laboratory for the study of democratic school administration and to date its data have been little examined.

We need studies of each of these devices, not only as to the types of problems each can be used to handle, but also as to the ways by which they can be abused or ignored in practice. If by necessity direct control of the schools by the people is to give way to control by representatives, we need to know how to control the representatives. If we are to control them by public opinion, we not only must have devices that will work, but devices that the people will apply when they are needed. Public education has many enemies who would like to control it. The stingy taxpayer is only one and not the worst of these. Certain big corporations would like to control the teaching of economics; certain fanatics with quack social theories would like to use the schools to indoctrinate the young in the hope of introducing facism or communism in place of democracy. Pressure group government is be-

³²See the author's "School Board Control — The Necessary Tools and Procedures," *Educational Administration and Supervision*, XXVIII:561-580, November, 1942.

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coming a real danger. Then there is the political aspirant, the business advertiser, the social climber, all ready to use the schools to their special ends. All this is to be expected in a free country, hence our plan of government must be able to cope with it.

Are People Retaining Vital Holds?

In evaluating the trend away from the district meeting it is not enough to say that the district legislation technique is impossible or at best very slow and clumsy. Our real concern should be with what we are putting in its place. Are the people retaining a vital hold on the schools, even though they are moving back a step from direct control; and, are we developing contacts between the home and the school and between the community and the school that will contribute, in proportion to our needs (which are greatly increasing) as effectively as did the school meeting?

From the facts examined in this study it seems apparent that we are entrusting the schools more and more to boards of education and to their expert employees, but in doing this we are in most, but not by any means all, cases keeping substantial checks on boards through the devices noted above. As to keeping the parents close to the school, several devices have been developed. The visiting teacher, the parent-teachers association, the more personal type of report card, and visiting days are samples. Contacts with the community are being made partly by official relations between schools and other branches of the government, such as the health department, by community councils that bring all service organizations together, by youth councils, by Red Cross and community chest activities, by education-week programs and the like. With such devices active it cannot be that the schools are in danger of getting isolated and the checks on board management seem to be operating effectively.

8. The Look Ahead

This study is not adequate as a basis for many recommendations as to the future. It may have provoked some thoughts, however, and these may be set down here, not so much to provide a program of action, but more to provoke further study of these problems. In the first place, if we are to produce education that will contribute to our mode of life, we shall want it managed democratically. It follows that any change in our plan of school government is of importance to us. Change is going on and in form it is in a direction less democratic. Whether this is true in substance is not answered by this study, though the impression gained is that the people have lost little if any actual control.

In a democracy government may be useful as an end but primarily it must be a means for getting something done—we must keep fit to govern ourselves, we must



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Superintendent,
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Dr. Moreland took over the administration of the schools on July 1, 1945.

safeguard our lives and our culture, we must improve our lot if we can. Education is our special instrument, not only for conserving our cultural pattern, but for social progress as well.

Democracy means that all the people participate in the control of public affairs and that all have a say in what affairs shall be public. It means that as our mode of life and the values we treasure change, due to discovery, invention, growth of population, and shift in international relations, we shall be free, and because of self-interest will endeavor, to rearrange our government and its purposes and procedures to fit the new circumstances of life. There is every reason to assume that change is a basic characteristic of our society, and accordingly that we cannot expect to have a government that is fixed and static in form and process.

Democracy is not endangered by a shift to representative government unless it fails to establish adequate checks on its representatives. Checks must compel right actions and prevent wrong actions. Checks on school boards can be through laws that specify the board duties and prescribe its procedures and laws that permit the people to act on their own initiative under given circumstances.

Other Social Controls of Schools

Although this study shows that direct school legislation is on the decline and board management on the increase there

are three other matters to consider: first, this shift in many cases had strings to it (election, petition, hearing, public records and reports, open meetings) by which the people may bring their board to terms. Second, a control that is not so much legal as it is social is being developed and is proving effective. The school is now so firmly fixed as a part of our culture and its general nature is so well understood and so widely accepted that public opinion is quick to react to any neglect or violation of accepted ideas. This is the best possible evidence of a healthy democracy and is the highest form of self government. Law is merely a supplement to the vast system of control that operates through habits—customs, proprieties, social conventions, ideals, aspirations, moral standards, standards of good taste, intellectual standards, styles, and the like. Most of our problems of social control are cared for by this social mechanism. Our people believe in education, in public schools, in social betterment, in intellectual growth for all the people. These beliefs exist as ideals and purposes, as attitudes and habits, as norms of good taste and culture. They cannot be set aside carelessly by anyone without offending a large percentage of our people. These things, abstract and vague as they may seem, are the foundation upon which our law rests and it should be our concern to keep them healthy and active as means of control over our government.

A third consideration to remember is the healthy growth of control over technical matters by experts. Though not developed in this study this trend is widely apparent and tends to safeguard important interests from clumsy handling either by the people direct or by their lay boards.

There may be some lag between scientific development in education and school laws, but in general school law has kept following, so that, as the schools have been handed over to boards to manage, the laws have greatly increased and refined the specifications by which the board must act. Thus, by means of its special checks still giving the people power of direct action, by the pressure of accepted social standards and public opinion, and by greatly increased use of technical experts, and with a growing body of law it seems doubtful whether the people are in any way loosening their hold on their schools.

If there is one point of danger it lies in the proneness of the people to apathy. It requires exertion to keep public interest at a point where it will use its special checks on the board. In this fact there is real danger unless the professional leadership of the schools assume some proper responsibility for keeping the people informed and interested. There must be no real separation of the home from the school, due, either to change in the system of control or to the growing technicalities of education in the hands of highly trained teachers.

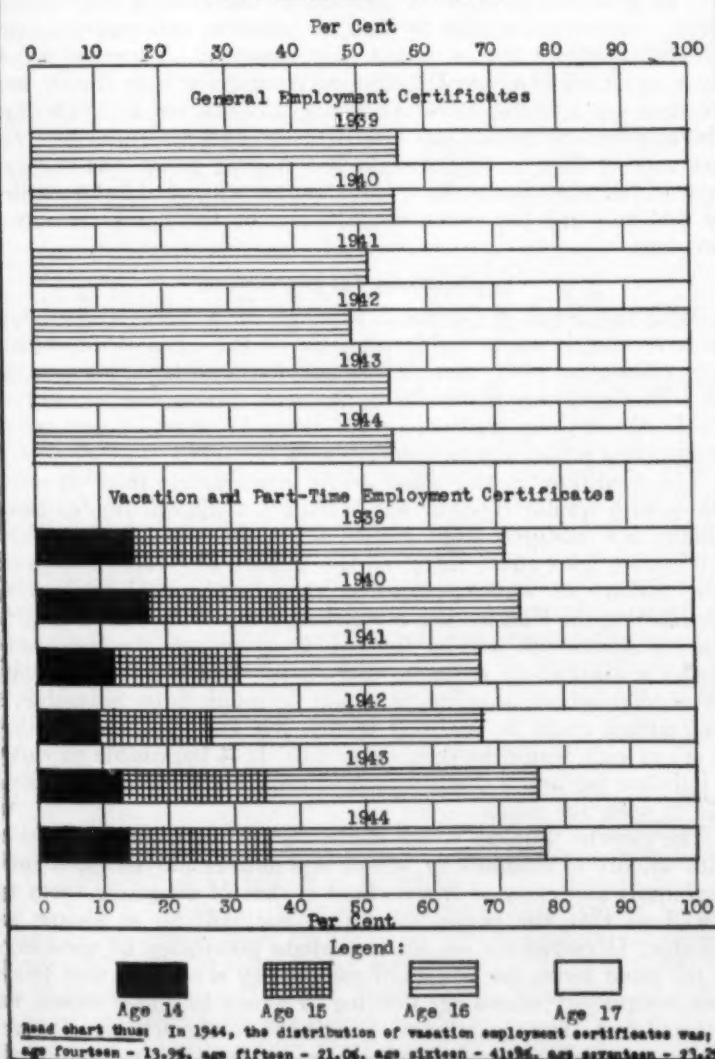
Age Levels of Minors Entering Employment in Pennsylvania *Carl D. Morneweck¹*

The enormous influx of minors in their early and middle teens into the employment market during the past few years has been one of the major problems confronting persons interested in the educational welfare of our young people. Even though this nation has accepted the universal education of youth, there was a realization that we were in conflict with enemies who had little regard for child labor which they exploited to full advantage for war production. We were therefore compelled, with such competition, to utilize early teen-age employment with necessary safeguards. Early in 1944, a concerted effort was made to organize a "Go-to-School Drive" throughout the nation with the opening of the school year 1944-1945. The present treatise is an attempt to present the age levels at which minors in their teens entered the employment market as well as to analyze the early effects of the "Go-to-School Drive."

For the purpose of clarification, in Pennsylvania as in most states, a general employment certificate is issued to excuse minors from school for work. In this state, it certifies for employment

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AGE DISTRIBUTION OF MINORS ISSUED GENERAL OR VACATION AND PART-TIME EMPLOYMENT CERTIFICATES UNDER PROVISIONS OF PENNSYLVANIA CHILD LABOR LAW - 1939-1944



purposes those minors who are 16 and 17 years of age. Vacation and part-time employment certificates are issued to minors 14 to 17 years of age, inclusive, to permit employment outside of school hours and during vacation periods. Minors 14 and 15 years of age are limited to occupations centering largely about service industries. The hours spent in school plus the hours of employment cannot exceed eight in any one day, nor more than 44 per week. Employment for this younger age group is likewise limited between the hours of 7:00 a.m. and 7:00 p.m. Farm and domestic service were excluded, since these types of work are not covered by the Child Labor Law of Pennsylvania.

A recent study released by Merritt and Hendricks² reviewed the age of employed minors under 18 on a nationwide basis but because of the scope of the data collected, their treatise was limited to sampling of the largest cities. The present study, which comprises employment certification in the second most populous state of the Union, presents the situation not only as it is influenced by the larger cities but as it existed in all of the 2546 school districts in Pennsylvania.

The reader should bear in mind that the first issue employment certificates do not represent the total number of youths employed at any one period but indicate rather the earliest age at which the first employment certificate was obtained. Data relative to labor turnover at this age level on a state-wide basis are too inadequate for study.

Peak of General Employment Certification Attained in 1943

It is a source of satisfaction to realize that the withdrawal from school for employment began to recede in 1944, as Table I reveals. In the year 1939 when the effects of World War II as it existed in Europe first spurred on American industry, the number of general employment certificates issued was 11,634. In 1943, the peak of 109,197 was reached but then retrogressed to 95,702 in 1944. It cannot be stated with certainty that the "Go-to-School Drive" was solely responsible for this decrease, although it can be

TABLE I. Distribution in Pennsylvania of First Issue Certificates for Vacation or Part-Time and General Employment According to Age Levels from 1939-1944.

Year	Age Level at Time of Issue of							
	Vacation	Part-Time	Employment	Certificate	General	Employment	Certificate	
	14	15	16	17	Total	16	17	Total
1939....	1,173	1,693	2,210	2,049	7,125	6,494	5,140	11,634
1940....	1,512	2,072	2,791	2,294	8,669	6,751	5,446	12,197
1941....	2,560	4,078	7,957	7,095	21,690	16,931	16,312	33,243
1942....	4,598	8,344	19,893	15,843	48,678	36,557	32,494	69,051
1943....	11,465	19,491	37,228	21,515	89,699	59,170	50,007	109,177
1944....	14,055	21,246	42,268	23,472	101,041	52,178	43,524	95,702

NOTE: The writer is indebted to Jonas E. Wagner and J. Mahon Bonebrake, Advisers in Research and Statistics, Pennsylvania Department of Public Instruction, for the compilation of the data appearing in this table.

assumed with reasonable assurance that it was an influential factor. Many of the 17-year-old minors who might have entered the employment market at this age level probably entered the armed services without the intermediate step of a work period between withdrawal from school and entrance into the military service.

Vacation and Part-Time Employment Certification Still Increasing

According to Table I, the greatest number of vacation employment certificates issued during the six-year period was in 1944 when 101,041 were issued to minors for their first job. This was

²Merritt, Ella Arvilla, and Hendricks, Floy, "Trend of Child Labor, 1940-44," *Monthly Labor Review*, U. S. Department of Labor, Bureau of Labor Statistics, April, 1945.

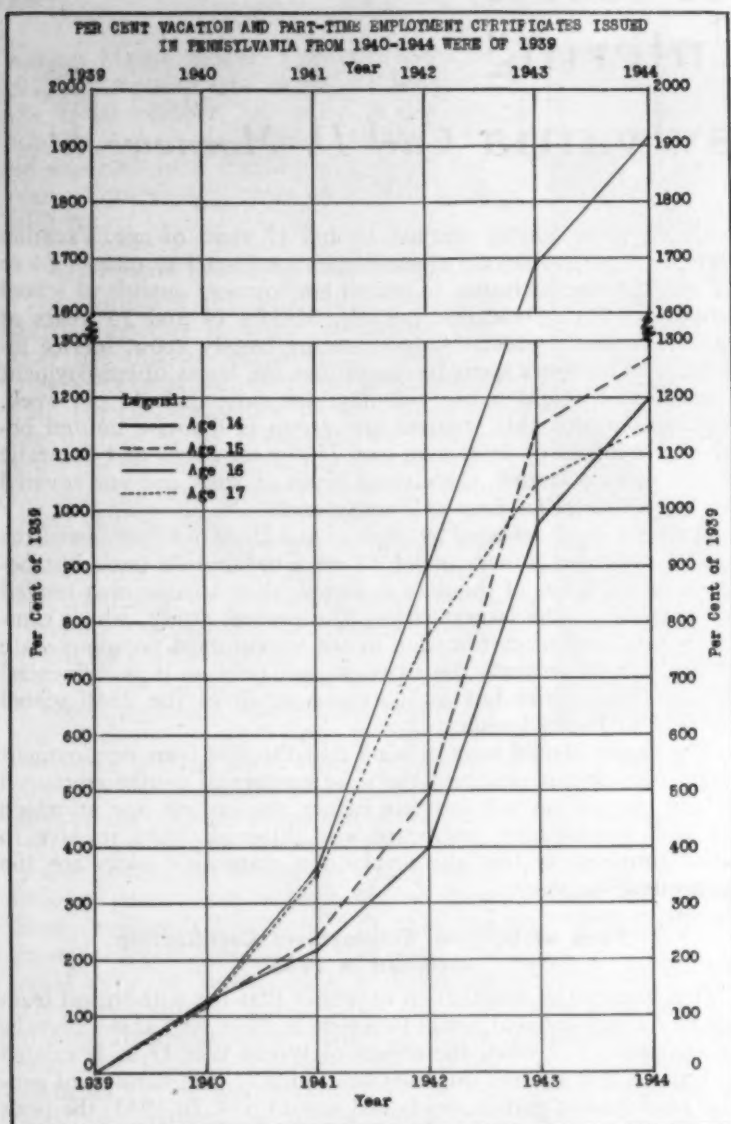


Chart II.

11,342 greater than the previous high of 89,699 in 1943. No doubt, the "Go-to-School Drive" with the concomitant proposal to continue in school and to pursue a part-time job were in part responsible for this situation. Employers, likewise, foreseeing the undesirable condition which was developing in the reversion of our teen-age minors to a lower educational level, co-operated by arranging part-time work programs.

Distribution of Age Groups Over the Six-Year Period

The large per cent of boys and girls entering general employment for the first time were at the 16-year level, as indicated in Chart I. In 1941, the 16- and 17-year-old groups were almost equally divided and it was only in 1942 that the 17-year-olds predominated, when 51.4 per cent of the general employment certificates were issued to minors 17 years of age. It is likewise true that in the case of vacation employment certificates, the 16-year-olds represented approximately 41 per cent of the 14- to 17-year-age group for each of the past three years. It is also interesting to note that during 1939 and 1940 there were a higher per cent of minors 14 and 15 years of age in the vacation and part-time employment group than during the more critical years when we were most actively engaged in the war effort. The proportion of 17-year-olds was lower in 1943 and in 1944 than for the previous four years. The greatest proportion was at this age level in 1941 and in 1942, when they represented approximately one third of the age group 14 to 17, inclusive.

It is a wholesome indication that the majority of the vacation

and part-time employed persons were the older boys and girls; namely, those 16 and 17 years of age. An important consideration, as mentioned previously, is that employment of minors 14 and 15 years of age is much more limited due to the occupations prohibited by law to these minors. If these restrictions of the Pennsylvania Child Labor Law and federal regulations had not existed, it is problematical whether this younger group could have been checked to this degree. It is well at this point to compare the rate of increase of minors in employment at the various age levels.

Increase in Rate of Employment at Various Age Levels

From 1939 to 1944, on a vacation and part-time basis, employment was on the increase at each age level. The greatest acceleration occurred in 1942 and in 1943. At each age, as is revealed by Chart II, the rate of acceleration slowed down in 1944. The increase of vacation employment certificates in 1944 expressed progressively in per cent of 1939 for the four ages was as follows: sixteen years of age, 1913 per cent; 15 years of age, 1255 per cent; 14 years of age, 1198 per cent; and 17 years of age, 1146 per cent. It is thus true that the 16-year-old group was not only the largest single group every year but the rate of increase for the first time of employment was greatest at this level, followed by the 15-year group. The increase in employment among the 17-year group was the lowest of the four age levels. This was probably due to the fact that a minor planning to go to work due to misadjustment at school or unsatisfactory progress withdrew as soon as the Pennsylvania Child Labor Law permitted. On the other hand, the minor making satisfactory progress probably had a tendency to continue even though he had attained the age of 17.

The situation for rate of increase in the general employment field is somewhat similar to that for vacation and part-time employment, except that it is not so pronounced. A marked difference, as shown in Chart III, was the decrease at both the 16- and 17-year age levels in 1944. The peak was reached in 1943 when the employment certificates issued to the 16-year group was 911 per cent of that in 1939; while the 17-year group was 973 per cent of the 1939 figure. By 1944, the number issued had subsided to 804 and 842 per cents, respectively, of the figure five years previous.

Implications for the Future

With the defeat of Germany, resulting in cutbacks and gradual reconversion, it seems highly probable on the basis of incomplete information for 1945, that the demand for child labor even on the part-time program should be at its peak during the summer of 1945. All of these students except those 17 years of age are of compulsory school age in Pennsylvania.

The conditions in this state should approximate those in other states with similar types of war activities. Consequently, as these minors are released from employment, the compulsory school attendance laws affect them. In the welfare of youth, employers and parents of working children should give consideration to distributing the load in such a way that neither the minors' health nor his schoolwork will be affected. Even though the law would permit a 16-year-old minor to carry a full-time job and continue his regular school program, it would be much more advisable if two minors could be assigned to this job and thus the working hours of each would be reduced to half. It is impossible to carry a full-time job and a complete school program without deleterious effects upon the minor.

The present problem which confronts the nation in connection with minors of compulsory school age now employed on a full-time basis and excused from school is that of returning them to school so that the period of adjustment will be as simple as possible. If employers see an immediate possibility of reduction in the labor force, the minors of compulsory school age and those over compulsory school age desiring to return to school should be released first. The irregular trickling back to the schools of these minors released from employment presents a difficult administrative problem even in large schools where there is greater flexibility

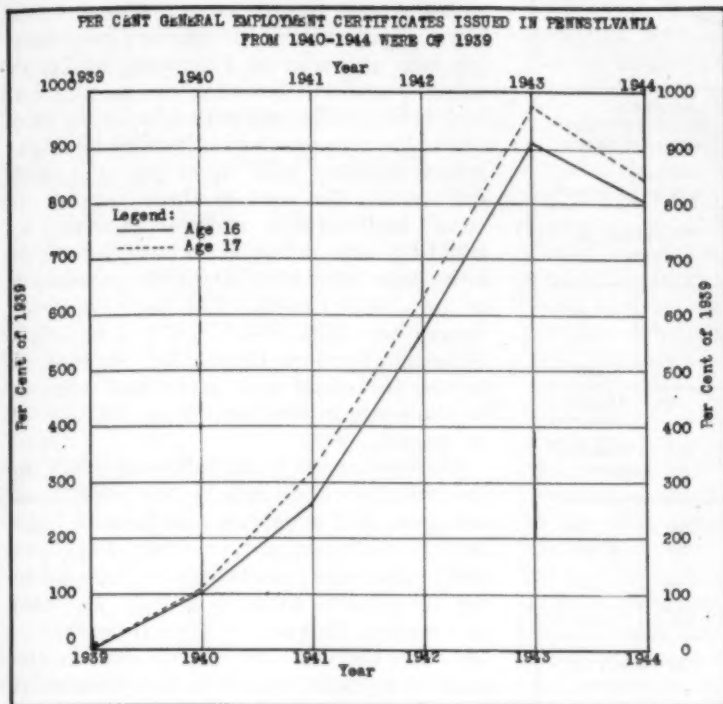


Chart III.

in programs. All school officials must give thought to a modified type of program for these youths who may return at any time during the course of the school year. Thought might be given to providing an extra period for these late entrants. In other cases probably approved correspondence courses on portions of the work which were given previous to their entrance should be made available. Another possibility would be special tutoring on the part of one or a group of schools employing certified teachers for this purpose; while in systems where numbers justify it, additional teachers might be added to the staff. Several smaller schools

might meet the emergency by employing additional teachers jointly. It would be very advantageous to the welfare of these boys and girls if local school officials and employers would discuss plans to meet this situation before its advent. Sympathetic but candid guidance is highly essential.

Summary and Conclusions

1. The employment market for boys and girls withdrawing from school apparently reached its peak in 1943. However, there still seems to be an upward trend in the employment of minors for out-of-school hours and vacation periods.

2. It is a generally accepted principle that some employment for youths is advantageous, but we have seemingly reached the stage in the war effort when attention should be directed to a reduction in the number of working hours for many of the part-time employed minors who also attend school.

3. Layoffs and cutbacks will probably affect minors of this age level in the early stages of reduction in the labor force. School officials must give serious consideration to the type of program available for such persons who may return to school at any time throughout the year. Consideration should be given to a flexible program which should probably include special classes for the latecomers, special tutors, and addition of extra periods to the school day. In the larger school system, employment of additional teachers as occasion demands, might be the most practical solution. Several smaller school systems might employ teachers jointly for this purpose.

4. Where a reduction in the labor force seems imminent, employers should be encouraged to discharge minors of compulsory school age so that they may take advantage of as much of the regular school year as possible. This should also include minors beyond the compulsory school age but planning to continue with their education.

5. The evidence presented herein indicates the salutary effect of the "Go-to-School Drive." Public opinion seems favorable to the belief that the best assignment for our youths is a school program accompanied by part-time work which is not detrimental to school progress or health of the pupil.

Equal Pay for Men and Women Teachers

Hazel Davis¹

Ask the average American citizen, "Should men and women teachers of equal qualifications be paid the same salaries for the same kind of work?" and he will say "Yes, that's only fair. If they do the same work they ought to get the same pay." Then if he is asked further—"But suppose the man teacher has children to support?" then the answer is likely to be, "That's his personal responsibility—he ought to be paid enough for the job to support his children. Besides, a lot of women teachers have people to support too."

This "average" American could be the spokesman of the teaching profession, as he could be for many boards of education. By law in a fourth of the states and by board policy in a large majority of the larger city school systems, the policy of equal pay is firmly established. When it is realized that this plan was almost untried in American education fifty years ago, the

spread of the idea is a testimonial to the fair-mindedness of American public opinion. It is true that women teachers have taken the lead in working for this principle. But they could not have succeeded on mere militant feminism alone. Their "cause" merited support and received it—from men teachers and from the general public.

The purpose of this article is to give recent facts on the progress of the equal-pay idea, and to discuss some related issues and trends.

Statute Law

State legislatures and Congress, chiefly in the past forty years, have passed a number of restrictive and protective laws that have helped to advance the principle of equal pay for men and women teachers.

As far back as 1890, the laws of Wyoming forbade sex discrimination in teacher's pay. By 1928 the legislatures of California, Louisiana, Maryland, Nevada, New Jersey, New York, Oregon, Texas, and Washington had outlawed the paying of

higher salaries to men teachers just because they were men. Congress had taken similar action in 1916 regarding the teachers of the District of Columbia, and in 1923 for civilian employees of the Federal Government. In one state, Montana, teachers are covered by a state-wide equal-pay law that applies to all kinds of employment, public and private.

The most recent addition to the roster of equal-pay states is Connecticut. Its legislature, in June, 1945, adopted the following Act:

No town or city or other municipality or board of education thereof shall discriminate on the basis of sex in the determination of the amounts to be paid or the payments to be made to persons employed as teachers in the public schools. This act shall take effect July 1, 1946 (1945, S.B. 624).

Including Connecticut's new law, the statutes of 12 states and the District of Columbia forbid unequal pay to men and women teachers.

Another type of legislation—the minimum-salary law—follows the principle of equal pay without mentioning it directly.

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FORTY YEARS OF THE EQUAL PAY PRINCIPLE AS REFLECTED IN CITY SALARY SCHEDULES FOR HIGH SCHOOL TEACHERS							
Grouping by 1940 population; and type of salary provision	Sample A Cities represented in three studies			Sample B Cities represented in two studies		Sample C All cities reporting in 1944-45	
	1904-05	1924-25	1944-45	1938-39	1944-45	Number	Percent
Group I. Cities over 100,000	64 cities in sample			74 cities in sample		79 cities in sample	
Equal pay for men and women....	18.7%	79.7%	87.5%	89.2%	87.8%	69	87.4%
Differentials for all men	81.3	20.3	9.4	10.8	9.5	8	10.1
Differentials for married men only	0	0	3.1	0	2.7	2	2.5
Total	100.0	100.0	100.0	100.0	100.0	79	100.0
Group II. Cities 30,000-100,000	45 cities in sample			122 cities in sample		164 cities in sample	
Equal pay for men and women ...	8.9%	51.1%	64.4%	65.6%	66.4%	110	67.1%
Differentials for all men	91.9	48.9	26.7	38.8	27.0	45	27.4
Differentials for married men only	0	0	8.9	1.6	6.6	9	5.5
Total	100.0	100.0	100.0	100.0	100.0	164	100.0
Groups I and II, Total	109 cities in sample			196 cities in sample		243 cities in sample	
Equal pay for men and women ...	14.7%	67.9%	78.0%	74.5%	74.5%	179	73.7%
Differentials for all men	85.3	32.1	16.5	24.5	20.4	53	21.8
Differentials for married men only	0	0	5.5	1.0	5.1	11	4.5
Total ...	100.0	100.0	100.0	100.0	100.0	243	100.0

Read table as follows: Of the 64 cities reporting in 1944-45 that had previously reported both in 1904-05 and in 1924-25, 18.7 per cent provided equal pay for men and women in 1904-05; 79.7 per cent gave equal pay in 1924-25; and 87.5 per cent gave equal pay in 1944-45. Read other samples and other lines in the same way.

Source: Based on the following reports of the National Education Association—*Report of the Committee on Salaries, Tenure, and Pensions*, 1905; *Special Salary Tabulations*, 1924-25; and *Educational Research Service Circulars*, Nos. 1 and 3, 1939 and Nos. 2 and 4, 1945.

Note: Many more than 109 of the cities now over 30,000 in population are common to the three reports covered by Sample A, but the sample is limited to cities that were 24,000 in population and above in 1905. In cities below that size in 1905 the total number of high school teachers in each city was typically less than 12. Few of these small cities had schedules and the number of teachers was too few to determine the salary policy by inspection of the distribution of salaries paid.

The 1905 study reported schedules and also a detailed distribution of salaries paid, by sex. Where a sex differential was clearly apparent from the salaries paid, even though the city had no schedule, the city is included as having a differential in 1905. The figures for later years are based entirely on salary schedules.

The figures for 1944-45, Sample C, include the following: Among the equal-pay cities, two Group II cities where dependency allowances are paid to teachers of both sexes; among the cities making differentials for all men, two Group II cities where the differential is larger for married than for single men, and one Group II city where dependency allowances are paid to teachers of both sexes; among the cities making differentials for married men only, one Group I city and one Group II city that limit the differential to married men with dependents.

Minimum-salary laws for teachers are in effect in 26 states and Alaska, and statutory schedules are in effect in Hawaii and Puerto Rico. No one of these laws makes a sex differential in salaries.

Federal Policy

Federal policy during World War II has been consistent with the Acts of 1916 and 1923. An order of the National War Labor Board in November, 1942, authorized employers to raise women's wages to the same rates as paid to men for the same classes of work, without securing approval from the NWLB. The WAC, WAVES, and other women's military reserve corps members have been paid at the same rates as men.

School-Board Policy

Although state minimum-salary laws have an influence, the actual amounts of salaries of individual teachers often are higher than the states require. With few

exceptions the amounts are fixed by local school boards, usually in contracts signed with individual teachers. Most of the larger cities follow a definite schedule of minimums, maximums, and increments in fixing individual salaries but among the smaller places there are fewer schedules and there is more individual bargaining. Where there is no schedule there is more likelihood that men's salaries will be higher.

During the 1800's women teachers with few exceptions were paid less than men, often less than half as much. A century ago, in 1845, the average weekly salary of men teachers in cities was \$11.88, of women, \$4.09.²

When the NEA made its first study of salaries, in 1905, the figures for men and women were shown separately as a matter of course. Average salaries for high school teachers in the 467 cities reporting were \$1,303 for men, \$903 for women.

²W. R. Burgess, *Trends of School Costs*, 1920, p. 32.

No recent figures on a national basis show average salaries of teachers separately for men and women. Long-time trends in salary schedules, however, can be studied.

A table is included with this article that shows the proportion of schedules for high-school teachers with equal pay and with differentials for men in three samples of cities. Each sample includes as many as could be used of the 363 school systems in cities that were over 30,000 in population in the 1940 Census. The table includes figures for 1905, 1925, 1939, and 1945. Although the long-time trend appears to be toward equal pay there has been in recent years a leveling off in the line of progress.

During the 20 years following 1905, in the 109 cities of Sample A, the per cent of schedules with equal pay rose from 14.7 per cent to 67.9 per cent. Between 1925 and 1945 there was a slight further increase in the proportion with equal pay for men and women. This second 20-year period has been marked also by a reduction in the number of cities making a flat differential for all men on the basis of sex alone and by the appearance of a new policy of providing higher pay for married men only. Sample B, covering nearly 200 cities, shows that this new plan is a development chiefly of the past six years.

Sample C consists of all cities over 30,000 in population that replied to the 1944-45 salary inquiry of the NEA. It includes two thirds of the cities of this size in the country and thus gives a more representative picture of current practice than Samples A and B. Of the 243 schedules, 73.7 per cent provided equal pay for men and women in 1944-45, 21.8 per cent had differentials scheduled for all men teachers, and 4.5 per cent had a differential for married men only.

At every date covered by the table, the big cities in Group I, over 100,000 in population, are far ahead of the smaller cities in providing equal pay. In 1944-45 differentials for all men were provided by 10.1 per cent of the Group I cities and 27.4 per cent of those in Group II. Only 2.5 per cent of Group I cities and 5.5 per cent of Group II cities reported differentials for married men only. Two of the cities that limit the extra pay to married men limit it still further to married men with dependents. Of the cities giving equal pay, two cities give dependency allowances to both men and women teachers.

There are striking regional differences in these policies. When the 243 cities reporting in 1944-45 are grouped by region it is seen that equal pay has made greatest progress in the Middle Atlantic and Far West states and the least in New England. The comparisons are as follows:

Of 35 New England cities, 31 per cent gave equal pay.
Of 48 Middle Atlantic cities, 98 per cent gave equal pay.
Of 29 Southern cities, 76 per cent gave equal pay.

Of 82 Middle States cities, 68 per cent gave equal pay.
 Of 17 Southwest cities, 88 per cent gave equal pay.
 Of 12 Northwest cities, 67 per cent gave equal pay.
 Of 20 Far West cities, 100 per cent gave equal pay.

Within the regions, certain state differences appear. For example, the four states of Massachusetts, Illinois, Michigan, and Wisconsin include 36 of the 64 cities that reported any kind of differential for men high school teachers in 1944-45.

Comparative and recent information such as the table shows is not available for smaller cities and for rural schools. In general, less progress toward equal pay has been made in the smaller centers. Of 1374 cities below 30,000 in population reporting in 1940-41, 51 per cent reported equal pay for men and women high school teachers.³

What Are the Issues?

Why, after a century and more of large differentials, has there been so much progress in the past forty years toward placing men and women teachers on the same footing for salary? Any why is there still a mass of relatively silent but none the less effective opposition to this practice? It is easier to answer the first question than the second, but some explanations can be offered for both.

The improved salary status of women teachers has paralleled (1) the rise of active state and local teachers associations, (2) the militant phase of the feminist movement that preceded the adoption of the Nineteenth Amendment, and (3) the tremendous increase since 1900 in the employment of women in business and industry.

Although women were admitted to active membership in the NEA in 1866, many years passed before women attained any degree of recognition. Ella Flagg Young, the first woman president, was elected in 1910. The association's first resolution "in favor of political equality of the sexes and equal pay for equal services" was adopted in 1914. These developments were forerunners, rather than the climax, of similar movements in state and local organizations of teachers. The decade of 1910-1919 was one of especially rapid growth in the organization of local associations and in the membership of state associations. It was in the big cities, where local associations first became strong, that the movement toward equal pay has made most headway.

The long years of battling for women's rights led to a victory in the second decade of the twentieth century, when Congress in 1919 recommended to the states the constitutional amendment providing for women's suffrage. Thirty-six states ratified the amendment in less than 15 months. The

equal-pay laws for teachers and the adoption of local equal-pay schedules were a natural accompaniment to the final phase of the campaign for women's suffrage.

When teaching was almost the only remunerative post that a lady might accept and still be a lady, teaching enjoyed a near monopoly as a field of employment for respectable females. As women made their way into offices and nonteaching professional services and as it became a common practice for young women to enter employment, teaching became only one of many possible fields for a career. Salaries and conditions of employment then could be compared with those in other occupations, and all too often teaching has suffered by the comparison because salaries have been so low. This competition from other occupations has been an influence in pushing salaries of women teachers upward.

But, in many places, women teachers still are paid less than men—either by a definite schedule or as the result of individual bargaining. Why is this so? The answer is not to be found in arguments based on principle. Those who uphold the practice usually admit (1) that women give as effective professional service as men and (2) that fairness and equity require that women and men should have equal salary recognition. The explanation is that, regardless of principles of equity, the conditions of employment in the United States are such that competent women can be employed at lower salaries than will secure equally competent men. Of the young men who become teachers, many go into other occupations when they see the impossibility of maintaining a family at an acceptable standard of living on a teacher's salary. Since money for public education is almost always scarce, and since men should make up a fair proportion of the teaching staff, it is better to pay a differential to men—so the justification runs—so as to attract more men into the profession.

The NEA Committee on Equal Opportunity, in discussing this issue in 1939, studied the figures on per cent of men teachers in each of the states and in cities with various types of salary schedules. They found that whether states or cities were compared, differentials for men did not accompany higher per cents of men teachers; equal pay did not accompany lower per cents of men teachers. Clearly, other factors were effective, such as the prestige value of teaching and the desirability of other occupational choices.

There is a recent tendency to change from differentials for all men to differentials for married men only. This practice is felt to be less unfair than a differential based on sex alone. It recognizes the fact that the typical salary of a teacher is entirely too small to provide for dependents. So long, however, as women teachers with dependents are not eligible to receive added salary on that account the discrimi-

nation on the basis of sex continues. The granting of a dependency allowance in itself raises a number of issues as to the proper basis on which the compensation of public employees should be fixed. If family allowances are to be granted at all, the line of progress appears to be that being charted by a few school systems where dependency allowances are granted to men and to women on an equal footing.

Better Conditions

The extreme money shortage of the depression years and the extreme manpower shortage of the war years both have hindered boards of education from making more rapid progress on the equal-pay principle. It is to be hoped that the postwar years will produce conditions more favorable to its further advance. These conditions would appear to include the following:

1. Greater appreciation by citizens of the value of good teaching to a community, leading to an understanding that better salaries for all teachers are needed to attract the competence required.

2. Better financing of schools so that maximum salaries are high enough to support a professional standard of living and to provide for the home and family responsibilities that the mature teacher, whether man or woman, typically must maintain.

3. A labor market such as prevailed in the early 1920's when there was relatively little unemployment, and yet there was no acute shortage of workers in white-collar and professional fields. It is likely that the per cent of men teachers will rise after World War II as it did after World War I.

4. Continued emphasis by associations of teachers on the equal-pay principle, including insistence on reducing or eliminating sex differentials when local salary schedules are being adopted, and support of proposed state laws for the elimination of differentials based on sex alone.

INDIANA RAISES MINIMUM SALARIES OF RURAL TEACHERS

With the beginning of the schools in September, rural teachers in Indiana received a considerable increase in the minimum salaries ordered by the State Department of Public Instruction.

All teachers who have the minimum training accepted for license will begin at a salary of \$140 per month and will be given increases at the rate of \$2.50 annually up to a maximum of \$160 per month. Under no circumstances will any teacher receive less than \$1,200 per annum. Teachers with a minimum professional training of 90 weeks will begin at \$142 and rise up to a maximum of \$162.50 per month. Teachers with 108 weeks training will begin at \$145 per month and rise to \$165 per month. Teachers with 126 weeks training will begin at \$147.50 per month and rise to \$167.50 per month. Teachers with 144 weeks training will begin at \$165 per month and rise up to a maximum of \$190 per month in the tenth year. Teachers with 180 weeks training or more will begin at \$165 and rise to a maximum of \$212.50 in the eighteenth year of experience. It is reported that a good many townships throughout the state are paying more than the legal minimum in order to obtain the services of competent teachers.

³NEA Research Bulletin, 20:86; May, 1942.

The Pupils' Own Art Gallery

C. H. Woodruff

First to greet the eye of any visitor as he enters the front door of the Lindbergh Junior High School in Long Beach, Calif., is a permanent exhibit of pupils' paintings and drawings. Two hundred pictures cover the corridor walls of the two main buildings with a gay medley of the students' creative efforts through the media of water color, colored chalk, crayola, terra cotta crayon, charcoal, pencil, starch painting, ink and tempera.

The pictures are as varied as are the experiences, interests, and personalities of the pupils. One girl whose hobby is horseback riding has become so expert in depicting horses that her spirited paintings are sold from the walls almost as fast as they are hung. Several boys delight above all else to show cartoons, although a far greater number paint and draw life studies of their fellow students. Closely associated with the life studies are the fashion drawings, largely though not invariably in color. Girls entering into young womanhood dream of clothes which present a grown-up look. Here they translate their dreams into lovely dress designs, which may some day open up vocational opportunities for numbers of them.

Brilliant and colorful California landscapes are everywhere. Interspersed are dozens of abstract studies so excellent in design as to seem not the work of junior high school boys and girls, but of graduate art students.

These studies in abstract design have an interesting story to tell when traced to their point of origin, the art room in charge of Miss Pearl Campbell. Says Miss Campbell, "On a large piece of paper, with a heavy, soft pencil or with charcoal, pupils are directed to make forceful lines that have a quality of beauty within themselves. The budding artists are warned to avoid the weak and meandering lines lacking character.

"Next they are told to make a thumb sketch utilizing three of the lines they like best and keeping within a vertical or horizontal rectangle. They are asked to draw line number one across the space so that it touches at least two sides of the rectangle and divides it into dominant and subordinate areas. Line number two they are told to place in harmony with line number one, perhaps flowing in the same general direction. Line number three they are taught should be in harmony with lines one and two or in opposition to them. Finally, they learn that they should repeat any or all lines until the space is adequately filled in a light and dark pattern.

"After toning charcoal paper to a neutral



The exhibit is not merely evidence of the achievements of the art department classes — it is an inspiration for every child to attempt original work.

or middle gray value, the pupils place on it the previously prepared thumb nail sketch. High lights are developed with a kneaded eraser and darks accentuated with charcoal or pencil.

"Only when the abstract drawing is completed are pupils permitted to know that it is to be used as the foundation structure for a water color, tempera, pencil, or char-

coal picture. The process results in free, bold, original compositions."

The idea of using the entire school as an art gallery for the display of pupils' work is the joint property of Principal Harry W. Stauffacher and of Miss Campbell. Three years ago, to give pupils more incentive to work, and to give them a worth-while outlet for the products of their labor, they launched this project which they could not now recall, even if they wished to do so.

To date, hundreds of boys and girls have had the satisfaction not only of developing their skills in the use of graphic materials, but also of having their work accepted for exhibition and hung for all of their sixteen hundred fellow students to see. Further, many of them have experienced the thrill of having their paintings and drawings bought.

Sales are made throughout the year, but are most numerous during the annual "art sales week," when parents and interested citizens of the community are invited especially to visit the gallery and make purchases. Pictures sell from \$1 up, with half of the purchase price going to the pupil and half to the school, which frames the pictures, mats them, and furnishes all other materials. Frames are 18½ by 24½ in., and are built in the school shops at low cost.

Sales money allocated to the school is



used to beautify the school. A committee of pupils and teachers decides how the fund can be expended to the best advantage. Thus far, committees have shown excellent taste and judgment in their purchases, which have included vases for flower arrangements placed daily in offices and classrooms, high-class prints of art masterpieces, figurines, tapestries, and other decorative materials which they think the school should have. The pride these pupils have for their school is everywhere visible in the improvements they themselves have made in its outward appearance. Each year, scores of pupils participate in adding lasting beauty to a place they have loved next to home.

The pupils of this school with their opportunities to create works of art, to exhibit and sell their products, and to purchase commercial art materials are becoming well-educated producers and consumers. Their homes, furniture, clothing, automobiles, their very pots and pans in the kitchens will be more beautiful and more functional than those of their parents. They appreciate art through having practiced it in many phases. A desire for beautiful surroundings, originating in their own interests and given ample opportunities to grow and expand, has built into them a self-confidence and discrimination that reveals itself in their personalities.

In addition, art so often relegated to a minor position in the school is here a major integrating force. It touches the lives of all the children of this school, whether they are in art classes or not.



The permanent show, which changes from month to month and year to year, provides pupils and teachers with an opportunity to appreciate the high standards of the art classes and to critically evaluate the individual drawings and paintings.

Beauty begets beauty, inside the hearts of those who live with it, as well as in its outward manifestations. A school, dedicated to beautification, suddenly finds itself doing better work, having fewer truanancies and other disciplinary lapses, and enjoying its many student activities as never before in its history.

An educational prophet would undoubtedly declare, "These pupils are truly on the road to becoming good citizens." This writer would add that they are going to be happy people, well worth knowing because of their outstanding personalities, their live interests, and their general competence.

Colorado Universities and Colleges Form Personnel Pool for School Planning

Calvin Grieder¹

Unique in Colorado's experience, and by no means commonly found in the rest of the country, is a co-operative planning service which was originated in response to a need for leadership in assisting the public schools in postwar educational planning. In operation for a year, the service promises to outlast the demands of the present and the immediate future.

The state education department lacks the necessary funds and personnel to furnish state-wide leadership in planning. The state planning commission typically is concerned with developing the state's agriculture, industries, highways, water, and tourist attractions, and is only slightly attentive to major problems in the protection and advancement of human resources.

¹Professor of School Administration, University of Colorado, and Secretary-Treasurer, Colorado Association of School Boards.

This last typifies in general the attitude of the state's political and financial leaders.

Seven Institutions Join Forces

To satisfy at least in part the urgent need for definite and constructive planning by school districts, so that they would not be caught flat-footed at the war's end, the setting up of an advisory planning service was conceived last fall at about the same time at two of the leading state institutions. Discovering each other's intentions, representatives of the Colorado State College of Education at Greeley and of the University of Colorado at Boulder corresponded and parleyed about the proposed services. Then they called representatives of five other institutions to meet with them.

The upshot of the meeting, attended by 18 men representing the 7 institutions, was

the organization of *The Colorado Co-operative Educational Service*. Besides the two public institutions mentioned, three others were included: Adams State College at Alamosa, Colorado A. & M. College at Fort Collins, and Western State College at Gunnison. Two private institutions also joined the enterprise: the University of Denver, and Colorado College at Colorado Springs. The only higher institution not included is the Colorado School of Mines, which has no relations with the public schools.

Executive Committee of Three in Control

No one of the seven institutions possesses the resources in staff and staff time to assist the schools in all the fields in which the combined staffs are equipped to operate. By pooling the resources of the several

institutions, the Cooperative Educational Service is able to place at the disposal of school authorities and teachers the expert counsel of individuals with special competence in various fields.

The Service is administered by an executive committee of three members, elected by ballot by the representatives of the participating institutions. During 1945 the members of the committee were Dr. O. L. Troxel, chairman, professor of education at the College at Greeley; Dr. Arthur K. Loomis, director, School of Education, University of Denver; and Dr. Harl R. Douglass, director, College of Education, University of Colorado. The term of office is to be three years, with one member retiring each year. No institutional representative may succeed himself on the committee.

In each instance in which the Cooperative Service is requested to investigate, advise, and counsel, its executive committee decides to what extent service may be appropriately rendered. It calls upon one or more individuals in the state to get in touch with the school system from which the request comes, and to give attention to the particular problems raised.

These consultants ordinarily are specialists from the staffs of the co-operating institutions. However, in some cases, state or federal employees, administrators, supervisors, and teachers in other school systems, who have demonstrated outstanding competence in dealing with the kind of problems to be studied are called in. Other persons are also asked to help who are not included in the categories named.

Individuals in the school system being served are asked to help in gathering needed data, in discussing findings, arriving at recommendations, and making such interpretation to the public as seems called for.

Assistance Offered in Ten Fields of Service

On the basis of consultations with school people in all parts of the state, and observation by members of the co-operating college and university staffs, ten fields of service were selected. They are listed here.

1. *Building and housing needs and plans.* This includes all aspects of schoolhouse planning, from site selection to educational advice on the plans and specifications, and the financing of construction. The Cooperative Service does not undertake to render technical architectural or engineering advice. Operation and maintenance of existing plants are also included.

2. *Financial programs and problems.* This topic covers a study of financial resources of a district, recommendation of a financial program for a period of years with due regard for a sound educational program, present indebtedness, sources of revenue, plant needs, mill levies, and general financial ability and tax burden of the community. Financial problems grow-

ing out of excessive debt service loads, unusual housing needs, decreased sources of revenue, and other special conditions may be studied.

3. *Curricular and extracurricular programs.* Under this head may be studied present offerings of a school and their organization in the light of local financial and teaching staff resources, the demands of American life today and in the future. Examination and evaluation of the programs and management of clubs, athletics, assemblies, home rooms, student government, and other pupil activities may be requested by school authorities.

4. *Guidance and pupil personnel, facilities, and program.* The Service evaluates, upon request, present guidance organization and services of a school or school system, and makes recommendations for a program suitable for the needs of young people in the postwar period. A survey may be made of the local methods of gathering, recording, and utilizing information of all kinds about pupils, the marking system, pupil-staff relationships, discipline, and morale.

5. *Staff and staff relationships.* This field relates to the qualifications of the staff of a school, assignment and load, the program for in-service growth, relationships between teaching, supervisory and administrative staffs, and between the board of education and the professional employees.

6. *Public relations.* Here may be surveyed and evaluated the present program of interpreting a school's activities and needs to the community; its efforts to build and keep good will; the relationship of the school to community life and organizations; and other aspects.

7. *Specific aspects of the school program.* In this branch of the Service such topics may be analyzed as the conduct of physical education and health instruction, the teaching of fine arts, social studies, vocational education, and the place of the school library in the instructional program.

8. *School district organization and pupil transportation.* This covers a study of the possibilities and plans for advantageous reorganization of administrative units; school consolidation; pupil transportation. Present status is not neglected.

9. *Pupil achievement, status, and instructional philosophy and methods.* This category includes measurement of pupil achievement and status in the various school subjects and in important educational outcomes and abilities, and evaluation in terms of normal performance in other schools of students with similar background and general intelligence. Related to this is investigation of the objectives and philosophy of the teaching and supervisory staff, and of methods employed in the classrooms.

10. *Business management.* Here is contemplated survey of the allocation of responsibilities for conducting the business of the school district or school: purchasing,

care and storing of property, accounting, budgeting; relationships between school board and secretary or business manager, superintendent, principals, custodians, and teaching staff.

While this list is fairly comprehensive, special problems of quite narrow scope arise from time to time in individual school districts. The Service counsels on any such problems if competent persons are available.

Cost to the schools is kept at a minimum. No fees are charged for personal services. A school district served is responsible only for the living expenses of consultants while in the community, traveling expenses, and expenses involved in collecting data, typing, and secretarial work related to reporting on the problem. Advance estimates of cost are furnished to school authorities by the executive committee upon request.

Disinterested Approach to Problems Wins Confidence

It is expected that most requests for assistance in the present and immediate postwar period will relate to site selection and the planning of school plants. Several studies of site selection have been made. Other studies already made deal with reorganization of secondary schools to eliminate the waste and educational inefficiency of small high schools in a given territory, and evaluation of existing school buildings with proposals for the future. One of the larger districts sought advice on personnel relationships and policies. A dozen requests for service have been received and met.

A most interesting and difficult request to fill was made by the Mesa County Association of School Boards. The problem in this instance was to study the possibilities for reorganization of the county's 37 administrative units, with the goal of providing better educational opportunities in a more efficient manner. This county, almost as large as the state of Connecticut, lies in the west central part of Colorado, and has a population of only 35,000. Three fourths live in and near Grand Junction, the county seat. The other quarter mostly are distributed in an irregular pattern over a vast area characterized by some of the most rugged and scenic country of the West, as well as by some very desirable agricultural, fruit, and stockgrowing lands. Heavily forested plateaus of 10,000 feet elevation, narrow canons 75 miles long with no intersecting side roads, and almost inaccessible mountain heights complicate the problem of providing educational service. A complete report was drawn up for the school boards at a total cost of less than \$300. District and county school officials contributed of their time, which helped materially in keeping the expenses low.

The disinterested character of the Service is one of its most outstanding attributes. The fact that each study is tailored in the light of the requirements of the problem

(Concluded on page 86)

The School Secretary

Helen R. Nowrey¹

"The employer knows very well that his effectiveness can be most quickly and surely multiplied if he has a secretary who is able to free him for responsibilities that require executive attention."² Perhaps in no secretarial position is this more true than that of the school secretary. For example, let us consider a typical school, in a community of 6000, whose school enrollment is 1400 (2/3 of the high school pupils are transported from surrounding districts), a teaching staff of 56, and other employees numbering 14, of whom three are secretaries. One secretary works entirely in the elementary school, where the work is almost entirely of a clerical nature; one secretary is located in the office of the high school principal, and here there are scores of routine, but vital, matters that must be linked together for the efficient operation of the high school, as well as the innumerable tasks outside of the routine duties. The third secretary is known as "secretary to the supervising principal," and it is this position which is discussed in the paragraphs which follow.

It has been said that the secretary in the supervising principal's office is more an office manager than a personal secretary. As in all school offices, the secretary "must understand the philosophy of education in the school system, and of her administrator, for without this understanding she cannot deal efficiently with the community."³ The wise supervising principal, therefore, keeps no secrets from his secretary, for he realizes that she has the ability to accept responsibility, and to keep confidential matters as such. A lack of confidence in one's secretary can result in only one thing — a corresponding lack of confidence in one's employer, and in no business is this more disastrous than in a school, particularly in the administrative office where the policies set forth by the board of education are worked out with the tact and efficiency that will "keep everybody happy."

The Duties Are Varied

In many schools, the duties of the secretary in the supervising principal's office are varied. In addition to the secretarial duties, there is board of education work to be done for the district clerk, and the treasury to be kept for all internal school accounts. The following chart illustrates the relative amount of time spent on each classification:

Administrative duties include records,

reports, requisitions, and general business administration, which are handled by the secretary without supervision. While reports themselves are often quite simple to complete, the matter of locating and keeping available at all times the information necessary for such reports is the most important factor. Teachers are likely to be critical of the fact that numerous questionnaires are given to them to complete, and it takes a great deal of tact to keep all records up to date with as little friction as possible, and this is the secretary's job. In the administrative office, records are kept of teachers' salaries, qualifications (education and experience), addresses, absences, and countless other details. The matter of supplies and equipment is no small task, even for a school system of only 1400 pupils. For the following list of items there are inventory cards, yearly requisitions from which estimates are prepared and orders placed, as well as current requisitions during the year from the staff:

Supplies:

Art
Janitors
Library
General school supplies
Science
Manual training (shop, home economics, mechanical drawing)

Books:

Textbooks
Supplementary
Library
Magazines

Equipment:

Repair and replacement items
Physical education
Maps
Manual training

Of Reports, There Is No End

Some of the above contain comparatively few items, perhaps twenty or thirty, but

others contain several hundred miscellaneous items all of which, to the teacher and the pupil, are equally important and must be available when needed. Reports are numerous, and include not only state and national reports of attendance, enrollment, finances, information in regard to the staff and pupils, but also reports to the local board of education of internal school affairs such as treasury, cafeteria, attendance, enrollment, progress of pupils, and educational surveys. The issuance of approximately 200 employment certificates to pupils under 18 who secure temporary or permanent work is also handled in the administrative office. The general duties under this category include distribution of salary checks, mimeographing, duplicating, securing substitute teachers, and maintaining files that will make the task of research a pleasure rather than an ordeal to be dreaded.

Many small school districts have part-time district clerks. This means that a great deal of the work of the board of education is done in the supervising principal's office. All orders are prepared, incoming supplies are checked, bills checked and classified, and the accompanying records, reports, and correspondence are a part of this assignment. Tuition bills are prepared, as well as an annual report of individual pupil attendance. The annual school budget for the district has a great deal more behind it than meets the eye, and many of the statistics that go into the making of it come from the supervising principal's office.

An internal school accounting system, whereby all money is kept in a central treasury, and all bills are paid by check, takes more time than the average layman would imagine. The amount of money handled in a year may reach only \$40,000 in receipts, and \$35,000 in payments, but often the amount in any one transaction may be only one or two dollars. Student treasurers, with the approval of advisers, keep the individual accounts, and bring in receipts and orders for payments, but their books must be verified with those of the treasurer, and many conferences are sometimes necessary. Then, too, there is the matter of the bookkeeping, filing, reconciling of bank statements, and having (at a minute's notice) the balance in some forty or fifty accounts.

Every Taxpayer Is an "Employer"

In a school office, the telephone calls are constant interruptions at the most inopportune times. However, here, as perhaps nowhere else in the business world, courtesy is of the utmost importance. After all, every



The school secretary's duties as analyzed by the author.

¹ Secretary to Mr. Clyde W. Slocum, Supervising Principal of Schools, Haddon Heights, N. J.

² Frederick G. Nichols, in "Secretarial Efficiency."

³ Paul R. Jones, supervising principal, Palmyra, N. J.

parent is a "customer," every taxpayer is an "employer" . . . and the business calls are in addition. Many people look to a school office as an "information bureau" . . . and more than once a school secretary is called upon to look in the encyclopedia for a bit of information that is requested, to say nothing of minute books and registers dating back twenty or thirty years. Courtesy takes time . . . but it is one of the important factors in the telephone calls to and from a school office.

There is a certain amount of "service," clerical and advisory, expected from the secretary. Time is consumed by interruptions in routine to answer questions, give opinions and assistance, but the reward is the saving of valuable time for the supervising principal, and the co-operation and appreciation that will be shown by the teachers and other employees as a result. This is a part of the job that pays big dividends. Many problems are brought to the office that place upon the secretary a great responsibility, for one must see the viewpoint of the teacher or employee, but also that of the board of education and the administration. There are many "little" things that pass unnoticed in the day's work — and the greatest satisfaction comes from being able to help someone because of years of experience with similar situations. To handle these problems without betraying the confidence of anyone is perhaps the greatest responsibility.

Questions are sometimes asked as to whether there is any work to be done during the summer in a school office. It should be remembered that the secretarial work continues during the summer, and that there are many orders to be filled, with resultant checking of books, supplies, etc. Then, too, the work of the high school office is considerably more than enough for one secretary, and the secretary in the supervising principal's office assists with this work which, during the summer, means scheduling pupils' cards for the coming year, preparation of class lists, and during the school year there are many emergencies in which the combined efforts are necessary.

A Day's and a Year's Cycle

There is no typical day in a supervising principal's office, but an average day might go something like this: secure substitutes for teachers who are ill, assist in high school office with absence and tardy slips for pupils, dictation and transcription of letters, employment certificates, board of education orders, check materials received, receive money for deposit from student treasurers, make out necessary checks, mimeographing, duplicating, filing, and special work depending upon the demand — all interrupted periodically by telephone calls. The special work mentioned might include one of the duties that occur monthly (cafeteria statement, treasury report, statistical report, supervising prin-

cipal's report to the board of education, listing of bills approved for payment by the board of education, report of absences and substitutes, distribution of salary checks, etc.) or those that occur only once or twice during the year.

The cycle of the school year goes something like this: opening school details, changing schedules, enrollment reports, textbook orders, revision of records, age-grade table, teacher load report, report to county superintendent, tuition bills, salary reports, budget data, examinations, end of term details, inventories, supply lists, annual reports on teachers and pupils, diploma names and courses, tuition bills, requisitions for supplementary books, magazines, maps, etc., contracts for teachers, new teachers, closing school details, commencement, examinations, reports (many of them!), textbook orders, supply orders, registers, schedule cards, check and stamp and number textbooks, class lists and home-room lists, rebound books, forms, notices, locks, mimeographing, notices to teachers and districts, school calendars . . . and then it starts all over again!

In general, one can say that office employees in schools are responsible to more than one employer, for they are really "public servants" to the board of education, the administration, the faculty, the janitors, pupils, parents, and many citizens. Schools are complicated businesses, and instead of having departments in charge of various activities, all are centered in the central offices. There is a wealth of information that the secretary must have at her finger tips, for without this knowledge the amount of work would be greatly

increased. Just as methods in education and business change from time to time, the office procedure changes. Revisions are accomplished quietly in many cases, and no one realizes that things have changed. It is a fascinating job, but one in which an attitude of friendliness must be combined with a degree of firmness in the matter of records and regulations, and tact and accuracy work very well together in securing the respect and co-operation that mean so much to the secretary.

DEMING HIGH SCHOOL LIBRARY

J. Cloyd Miller¹

The Deming High School Library at Deming, N. Mex., which has been rated as one of the most effective in the state, bases its recent success upon the attractiveness and usefulness of its stock of valuable books and periodicals, and upon the fact that its administration consciously interests an unusually high percentage of the students for leisure reading as well as study.

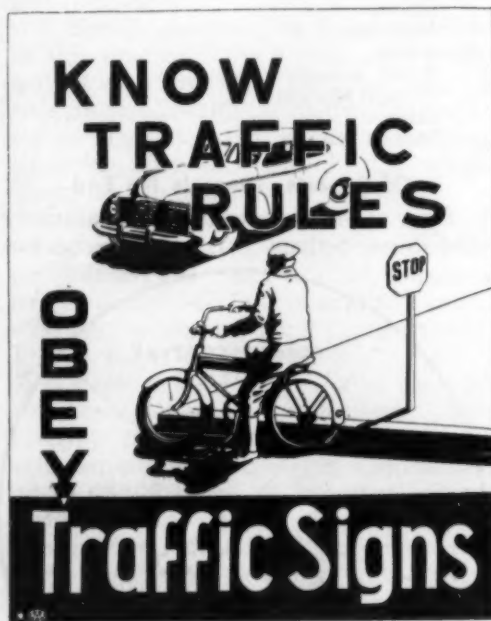
The library, which consists of a large room measuring 59 by 32 ft., a small workroom, and a conference room, was designed by its librarian, Mrs. Mildred McKim, who has had professional library training received in two western universities. The room was entirely planned by Mrs. McKim as a part of her graduate course in library planning at the University of Southern California.

The room adjoins the study hall, with which it is connected by doors. It faces east and practically the whole exterior wall is glass, shaded with Venetian blinds. The walls and ceilings are tinted a very light green, and shelving for books and magazines occupies every available inch of wall space. The furniture is of the best library type, and the attractiveness of the room is increased by well-chosen pictures and plants. The modern library devices include complete card files, book trucks, display tables, and special librarian's aids.

The library appropriation, which has never been lessened even during the depression years, permits the purchase of 300 new books each year and of 29 general magazines and 15 special periodicals. Efforts are made continuously to receive pamphlets and other free and low cost material of current social, economic, and scientific value. A regular program of eliminating obsolete and rarely used books is carried on so that the collection of 3700 books is all in excellent condition and entirely usable. The annual circulation is upwards of 10,200.

The co-operation of the teaching staff is regularly solicited so that the library represents quite genuinely the current interests and needs of the several departments of the school. Both the librarian and the teachers are alive to the revolutionary improvement in children's books, which make reading attractive and helpful, both for immediate study and for later life. The Deming high school library operates on the plan that the best way to teach children to read is to have them read regularly and widely. All children in the six years of the high school consider it a privilege to use the library.

¹Superintendent of Schools, Deming, N. Mex.



More than a thousand entries from elementary and junior high schools were received in a National Poster Contest sponsored by the American Automobile Association and emphasizing safety in traffic.

Seeing in the Schoolhouse

William G. Darley*

PART II

In Part I of "Seeing in the Schoolhouse,"²³ the more important factors influencing seeing were discussed. These are: the size of the object being viewed, the revealing brightness contrast between the object and its immediate background, the readability of the material, the time allowed for seeing, the brightness of the task, the disturbing brightness ratio between the task and its surroundings, the acuity of the eye, and eyeglasses; whether intermittent or concentrated attention is required, and whether short or prolonged periods are involved.

The Utilization of Aids to Seeing

The degree of utilization of any aid to seeing (type size, revealing brightness contrast, brightness, eyeglasses, etc.) may be represented diagrammatically by the position of the arrow in Figure 8.²⁴ The setting of the arrow also represents a degree of ease of seeing. One may change the position of the arrow by turning the knob "K." Except for the condition of maximum utilization of any aid to seeing, any setting of the arrow actually represents a compromise between costs of and benefits from any specific aid. In the lowest position, the specific aid is utilized minimally. It may be the illumination to produce a brightness for barely seeing, or it may be the smallest type size that can be seen under given conditions, etc.

As previously mentioned, within certain limits, increasing the "size" of an object increases its visibility and the ease with which it may be seen. Thus, the 3-point type in Figure 9 is not as easy to decipher as is the 12-point type. On the other hand, many more words can be contained on a given size page if 3-point type is used. Hence, the size of the type used for a publication depends upon someone's evaluation of the benefits of a larger size vs. the greater cost of the printed material when the larger size is used.

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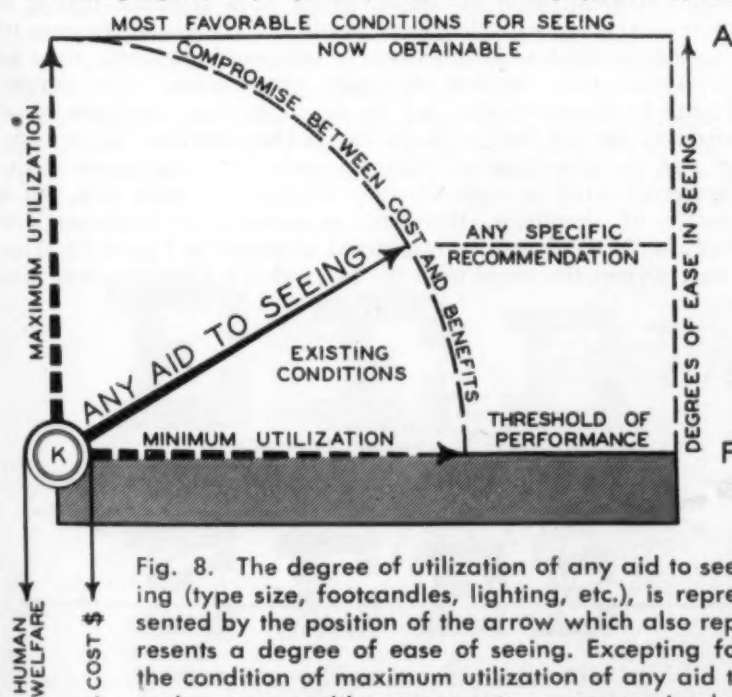


Fig. 8. The degree of utilization of any aid to seeing (type size, footcandles, lighting, etc.), is represented by the position of the arrow which also represents a degree of ease of seeing. Excepting for the condition of maximum utilization of any aid to seeing, any position represents a compromise between monetary cost and human benefits or welfare. Levels A and F in Figure 10 are indicated on this diagram.²⁴

For example, the average type used for the text matter in newspapers is approximately 7 point (Fig. 9). It is obvious that 10-point and 12-point sizes, which are used in many books, are more desirable. Thus, the 7-point type represents an arbitrary setting of the pointer on the part of the publisher.

Again, a high revealing brightness contrast is an aid to seeing. One hundred per cent contrast, however, would cost a great deal (if it could be obtained at all). For most practical purposes, a maximum of the order of 95 per cent contrast is acceptable. When school authorities adopt the use of materials which result in a lower per cent contrast than this, they are compromising on the setting of the pointer.

As a generalization, readability of a given text improves as the space between lines (points of leading) is increased from 0 to 6 points (Fig. 9). A decision to use less than 6 points of leading for textbooks represents a setting of the arrow between the minimum and maximum utilization of this particular aid to seeing. This setting is based upon a long-term evaluation of the subjective reactions to the benefits of leading in improving readability versus the greater cost of books using more leading. The cost increases because of the increased number of pages required for a given amount of printed matter as the leading is made greater.

Low brightness ratios between the work and other surfaces in the environment are a considerable aid to seeing. Yet even with the best techniques available today, it appears impractical from a cost standpoint to obtain the uniform brightness pattern necessary to achieve the maximum utilization of this aid. Thus, while the Illuminating Engineering Society's Committee on Standards of Quality and Quantity of Illumination for Interiors states that for *ideal* seeing conditions, the ratio of the brightness of the visual task to the brightness of its immediate surroundings should be unity, the committee also states that *good* seeing conditions are attained when the brightness of the visual task is not higher than three times that of its immediate surroundings (limiting brightness ratio of 3).²⁵ (In any event, brightnesses in the immediate surroundings should not be higher than that of the task.) This again represents a specific recommendation somewhere between the minimum and the maximum utilizations of this aid.

Fortunately, in general the contributions which eyeglasses make to easier seeing cost no more for the maximum aid than for some

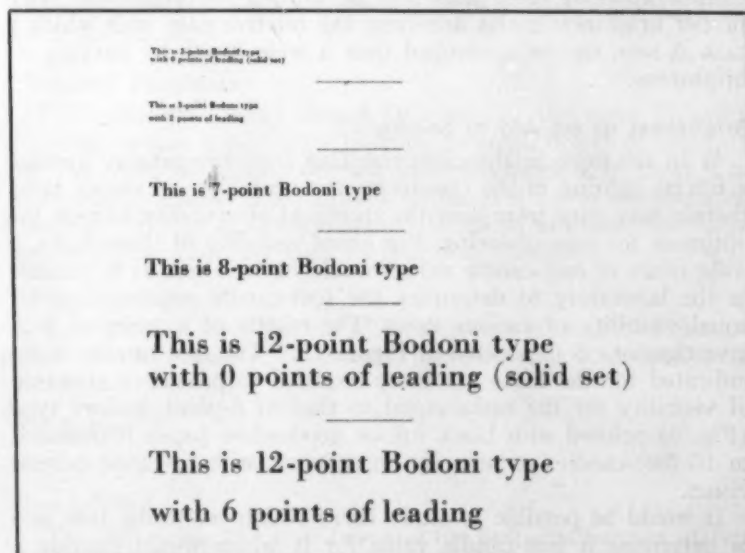


Fig. 9. Illustrating 3-, 7-, 8-, and 12-point type and the effect of leading.

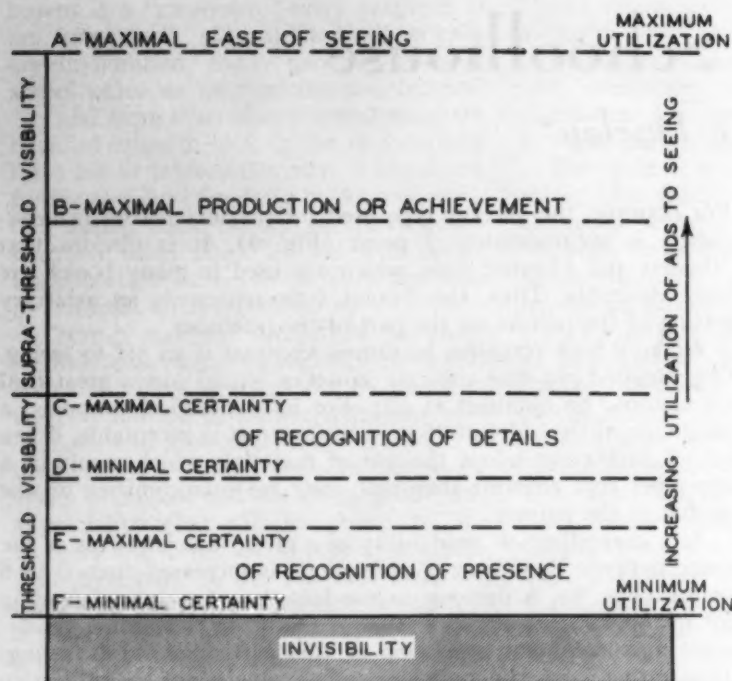


Fig. 10. For any given visual object or task, involving specific seeing conditions, there are six definite levels of seeing. The visual object or task may be raised from one level to another by increasing the utilization of appropriate aids to seeing. The various levels are merely arranged in a systematic order for the purpose of visualization.²⁴

point between the maximum and minimum utilizations. Thus, if a child needs a correction of $+2$ diopters, it is not necessary to decide whether or not he can financially afford only $\frac{1}{2}$ or 1 diopter, much less the 2, as is the case for some of the other aids to seeing. On the other hand, if 2 diopters did cost nearly twice as much as 1 diopter and if the cost was a very significant figure, it is quite possible that in many cases the decision as to the number of diopters to put in the lenses would be a compromise between cost and benefits.

For any given visual object or task involving specific seeing conditions, there are six definite levels of seeing as illustrated in Figure 10.²⁴ The visibility of the object or task may be raised from one level to another by increasing the utilization of one or more of the appropriate aids to seeing. In the following discussion, consideration of these aids will be limited to brightness. With proper brightness ratios achieved, the relative ease with which a task is seen can be controlled over a wide range by varying its brightness.

Brightness as an Aid to Seeing

With the work brightnesses resulting from present-day average artificial lighting in the classroom, the visibilities of seeing tasks therein may vary from near the threshold of visibility to near the optimum for ease of seeing. For equal visibility of these tasks, a wide range of foot-candle values would be required. It is possible in the laboratory to determine the foot-candle requirements for equal visibility of various tasks. The results of a series of such investigations is illustrated in Figure 11.²⁶ The foot-candle values indicated for the tasks are those required to provide a standard of visibility for the tasks equal to that of 8-point Bodoni type (Fig. 9) printed with black ink on good white paper illuminated to 10 foot-candles as seen by an observer with so-called normal vision.

It would be possible to study every classroom seeing task and to determine a foot-candle value for it which would provide a desired degree or standard of visibility, as was done for those tasks in Figure 11. While this may be done eventually, for the time being it must be considered that the foot-candle level chosen

TABLE I. Foot-Candles Reasonably Available as of Today.

In general, the illuminations at the lower end of the ranges are available with filament lighting while those at the upper end are reasonably available with fluorescent lighting.

Location	Range of reasonably available foot-candles average maintained in service
Sightsaving classrooms, etc.	30-100
Classrooms, etc.	20- 50
Gymnasiums, etc.	20- 40
Auditoriums, etc. (not used for study)	10- 20
Reception rooms, etc.	10- 20
Corridors, etc.	5- 15

for the classroom will provide more light than necessary for some tasks and not enough for others to have the degree of visibility selected.

Usually, persons with subnormal eyes need more light (a higher work brightness) if their ability to see is to approach that of those persons with normal vision. Hence, for example the handicap of astigmatism is not so great at higher values of illumination.^{27, 28, 29} It would seem apparent therefore, that the provision of seeing conditions in the classroom should not be predicated upon the needs of "tough," normal eyes, but upon those of the most sensitive and defective eyes in the group.

Today some recognition of the difference in the ability of different eyes to see is noted by the establishment of sightsaving classrooms for those whose vision is or has become so defective that normal classroom tasks are below the sustained threshold of the student even when fitted with eyeglasses. (Actually, the purpose of the sightsaving classroom is to preserve what is left to some pupils of their precious gift of sight. And this is a good thing. But the place to *save* sight is in regular classrooms where there may be good sight to save.)

As was indicated by Figure 3,²³ the effect on seeing of increasing brightness is subject to the same natural laws as hearing and sound. That is, approximately equal responses to brightness and sound are obtained by doubling the quantity of light or the volume of sound, respectively. (A comprehensive discussion of this matter will be found in Part I of this article.)²³

While it is evident that every added unit of brightness, or every added foot-candle, is an aid to seeing, it is apparent that it is more in keeping with the characteristics of the visual response to consider increments in brightness in terms of logarithmic steps as the visual tasks become obviously progressively more severe. Figure 12 illustrates this fact. As shown, in order to obtain *equal visibility* for the Snellen characters as they decrease significantly in size in approximately uniform steps, the brightness (foot-lamberts) must be approximately doubled for each step. As a matter of simplicity, therefore, increments in brightness, or foot-candle levels, can be considered as shown in Figure 13. This chart divides the range from 0.7 to 1500 ft-c (foot-candles) into

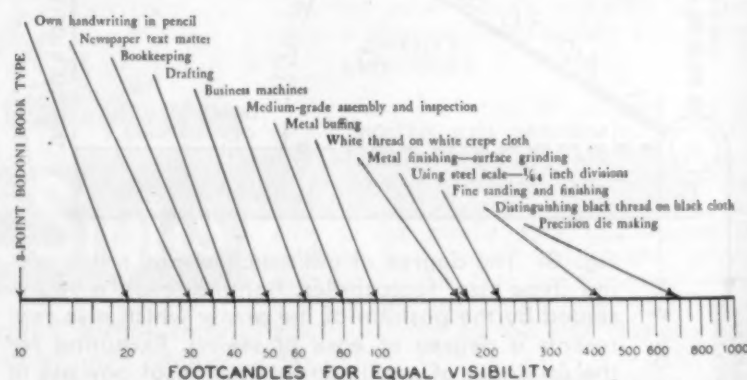


Fig. 11. Showing the foot-candle-level needed to make each task of the same visibility as 8-point Bodoni Book type (printed with black ink on white paper) when illuminated to a level of 10-ft-c.²⁶

10 classifications of illumination, each step upward representing an approximately equal increase in foot-candle effectiveness. The center of the "A" classification (range 70 to 150 ft-c) is 100 ft-c. This level is about 10 per cent of outdoor illumination on an overcast day.

The use of this chart as a basis for foot-candle recommendations has a number of advantages. It gives a much more realistic appraisal of illumination levels required for visual tasks which are one or a number of times significantly more difficult than others. It allows a certain latitude in the exact level of illumination selected by individuals when they set the pointer for their own particular space for which a certain classification of illumination is recommended. It recognizes the inherent limits and potentialities of different light sources and lighting systems in producing foot-candles. Thus, if it is assumed that classrooms should be provided with Classification B illumination, some school authorities might choose 30 ft-c as the average level to maintain in service while others might choose 50 to 70 ft-c. Again, some authorities might choose to use filament lighting which often has a practical limit of around 30 ft-c, while others might choose fluorescent lighting with a practical limit above 70 ft-c.

The ranges are also more practical from the standpoint of lighting design. The illumination found in service from a given lighting system will vary from the initial value with freshly painted walls and ceilings, clean reflectors and new lamps at proper voltage, to 70 per cent or less of this value as the system depreciates, particularly if voltage conditions are allowed to slip. Furthermore, with conventional methods of laying out artificial lighting systems, absolutely uniform illumination throughout the whole room is seldom realized. Practical considerations in making the layout and the variable influence of walls and others extraneous surfaces, such as chalkboards, which intercept and reflect light, influence the final results. As a rule, the illumination is highest in the middle of the space, lower at the walls and lowest in the corners. The variation may be as much as 30 per cent above to 30 per cent below the average calculated value. Hence, in some rooms designed for an average illumination of 50 ft-c in service, and maintained there, the foot-candles in the room may range from 35 to 65 ft-c.

A Visibility Goal

During the relatively short period that human beings have been subjected to mass education with the printed page as one of the fundamental educational tools, some changes have been made in the basic visual task of reading. Some of these, such as better papers, inks and printing, and higher brightnesses have contributed toward easier seeing. The changes have largely come about fortuitously as a result of technical developments, or as a

Set the pointer in Figure 8.

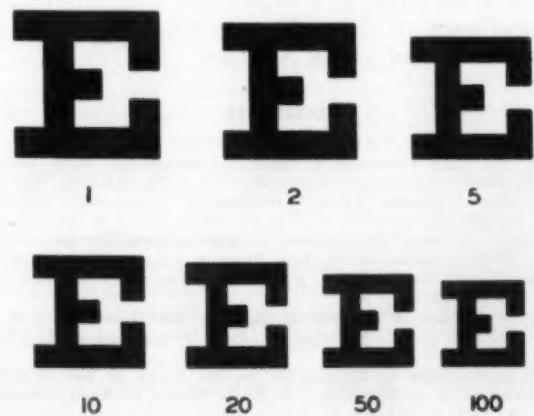


Fig. 12. Influence of brightness upon visual acuity as illustrated by Snellen characters. The numbers under the letter E are the foot-lamberts required for equal visibility.

LEVELS OF ILLUMINATION

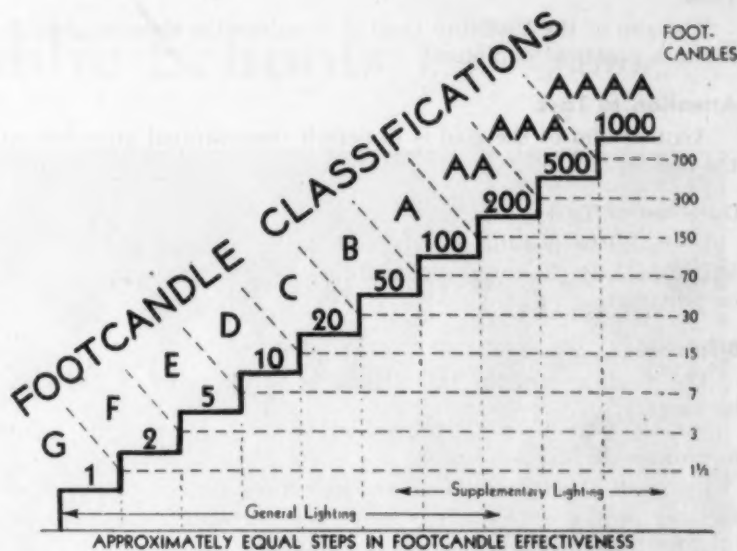


Fig. 13. A practical interpretation of the natural laws governing the usefulness of increasing levels of illumination on seeing ease.

result of subjective appraisals. In some instances the changes have resulted in less favorable seeing conditions.^k

Today there are available scientific techniques for evaluating visibility and ease of seeing. By working with the various controllable aids to seeing it is possible to vary the visibility of a given task over a wide range. It is thus possible to establish some degree of visibility as a standard, and then determine what is required of the controllable aids to seeing to make a group of tasks respectively possess this degree of visibility (Fig. 11). The establishment of such a present-day working standard (setting the pointer in Figure 8 at some compromise value) is a job for a committee composed of representatives from all groups who are interested in seeing conditions in the schoolhouse, e.g., schoolhouse planners and operators, educators, parents, illuminating engineers, taxpayers, etc. It is possible, however, to list some of the attributes of the ultimate standard for conditions most favorable to seeing near vision tasks, such as reading. This standard may be referred to as a Visibility Goal, and since reading is such a universal and common eye task it can well serve as the basis for this ultimate standard. Some of the attributes of the Visibility Goal are given below:

Eyes and Eyeglasses

Full acknowledgment should be made of the right of every pupil to have an opportunity to enjoy an equal degree of visibility for the task. All pupils needing glasses should have them. For those pupils whose vision cannot be brought up to the so-called "normal" level, special steps should be taken to make their tasks approach the Visibility Goal as nearly as possible.

Size

For "normal" eyes the size of letter to use is controlled to some extent by Readability. It appears, however, that 12-point type is a reasonable goal.

Contrast

A goal of 95 per cent contrast is realizable.

Readability

The best (clearest) type face and the best combination of type

^k For instance, many business desks of a few years ago had a light oak finish. Metal desks which are being used now more and more are usually provided with black or dark green linoleum tops. For most desk work, these tops result in definitely more disturbing brightness ratios than did the light oak tops.

size, line length and leading (space between lines) obtainable should be employed.

Time

The aim of the Visibility Goal is to reduce the time required to see to a practical minimum.

Attention to Task

Another aim of the goal is to permit concentrated attention on the task.

Duration of Task

It should be possible for the task to be accomplished for prolonged periods; however, regular times for resting the eyes should be provided.

Brightness

The brightness of the task should be of the order of 250 foot-lamberts.¹

Brightness Ratio

The task should not be more than three times brighter than surfaces in the surroundings and such surfaces should not be brighter than the task.

An Uncontrollable Factor

It must be kept in mind that as long as the eyes of the human seeing machine are geared naturally for distant vision, the attainment of the Visibility Goal for near vision tasks will only ease the burden which these tasks place upon the eyes.

Some of the above attributes of the Visibility Goal will be accepted without question; some may not. For instance, in the past there have been occasions when changes in brightness (foot-candle) standards have led to more heat than light according to *Time Magazine*. While it is obvious that the brightness goal cannot be considered as a standard for the classroom today, the following discussion is offered as a further contribution toward a better understanding of this particular matter.

Only recently have the ideas expressed with reference to the attainment of optimum seeing conditions been generally understood sufficiently well to form the basis for even tentative goals for visibility levels from the standpoint of brightness (foot-candles). In the absence of such an understanding, it is natural that current good practice foot-candle values should have been interpreted as "standards" for providing adequate visibility levels in the schoolhouse. That these "standards" have been consistently increasing during the past quarter century or more has led to some general confusion. An appreciation of the concepts of the *balance between benefits and cost* and of a *goal* may go a long way toward bringing about an understanding between school authorities and illuminating engineers as the foot-candle values adopted for good schoolhouse lighting practice increase in the future.

The brightness goal of 250 foot-lamberts is achieved with an illumination of about 300 ft-c on a nonglossy surface having a reflection factor of 80 per cent. As a matter of interest, 300 ft-c is sometimes available on desks and tables located close to large window areas.²

¹In considering the value of 250 foot-lamberts as a goal, it is recognized that this is a value indicated by present knowledge and subject to more accurate determination as studies are continued. Future researches may more probably require an increase in the value rather than a decrease.

²The eye evolved largely under daylight conditions with brightnesses from tens of foot-lamberts in the shade to as high as 5000 foot-lamberts for white snow on a clear winter's day. The brightness of green grass in sunlight on a clear July day (certainly a comfortable brightness to have in the field of view) ranged from 400 to 900 foot-lamberts depending upon the angle of view. Researches have indicated a greater efficiency for the human seeing machine where brightnesses comparable to those found outdoors have been employed.

If 300 ft-c is considered as a goal for the reading of good black print on white paper, it is obvious that in sewing classrooms where the reflection factor of the material is quite low and the revealing brightness contrast between the detail being observed and its background is also low, the illumination goal would be much higher than 300 foot-candles. It might be as high or higher than the highest foot-candles provided by the best natural lighting. (If one is trying to discern details on black cloth, the resulting visibility with 10,000 foot-candles of natural lighting may still leave something to be desired.)

Goals for other spaces where the eyes are not used intensively or for long periods of time, or the seeing tasks are not severe, would be according to the seeing requirements. It must be kept in mind, however, that while it might not take a very high brightness in a corridor to provide practically optimum conditions for the seeing tasks therein, such areas may be entered directly from well-lighted classrooms. Eyes adapt quickly when suddenly moved into a higher brightness environment. They may, however, take ten times as long for the change from a bright environment to a dark one.

Illuminations Reasonably Available

As previously indicated, the illumination levels required to reach the Visibility Goal are in general unattainable practically under present conditions, though for some tasks and for special cases they can be provided. Values of illumination which are reasonably available today are, however, indicated in Table I. These values take into consideration practical capacities of wiring systems, efficiencies of available light sources and luminaire types, lighting costs as a part of the cost of education, etc., as well as the demands of the visual tasks in the various rooms. It is indicated that higher values are reasonably available with fluorescent lighting than with filament lighting. This is because of the higher efficiency of the fluorescent lamps and the higher utilizations of some acceptable forms of fluorescent lighting.

It is not the intent of the author at this time to recommend specific foot-candle classifications (Fig. 13) for the various areas in the schoolhouse. A period is required for school authorities to explore the potentialities of fluorescent lighting, to reconsider the characteristics of the visual tasks in the classroom and to re-evaluate the worth of the eyesight which is in their custody. It is logical to assume that this period will result in new settings for the pointer (Fig. 8) for the various areas in the schoolhouse.

It is true, of course, that foot-candle classifications could be established for the schoolhouse based upon those utilized in the work-world for comparable seeing tasks. It is appreciated, however, that in the work-world the benefits are more tangible. There 50 to 100 ft-c are used because they draw more people to baseball games, they increase production, reduce spoilage and improve morale in the office and in the factory, and they sell more merchandise in the store. It is hoped that time will establish the relative importance of these things versus helping to ease the burdens on the eyes of young America.

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Army Educational Practices Challenge Public Schools J. W. Quinn¹

Many school-conscious citizens, including members of boards of education, are becoming alarmed over the apparent neglect of administrators in charge of public schools to make immediate use of training devices, teaching techniques, and materials successfully operated and perfected by the military. A firsthand inspection would seem to indicate that the armed forces have designed an educational program that is performing an exceptionally good job. Linguists, technicians in radar and radio, meteorologists, mechanics, and other specialists too numerous to mention are trained and available within a few months and, in some cases, weeks, when the task is urgent.

My first impression as a civilian instructor in the Army Specialized Training Reserve Program was that the military had pioneered and developed courses of study that administrators, teachers, and school-board members had been dabbling with for years but in which they had failed to set up few, if any, constructive objectives. There is no argument that the army has obtained results that often take the public schools and colleges extended periods of time.

Let us examine the basic characteristics of the army training program. First, may it be said that peacetime schools are geared to provide training and education that will best develop youth in terms of their abilities and maximum usefulness to themselves, the community, and society. Educational programs of the armed forces are, on the other hand, set to one pattern—winning a war. Quite naturally, the objectives and goals are in sharp focus. Concentration of effort and motivation of personnel are developed to an amazingly high degree. The military has developed in reality a job analysis for each task to be performed. The right man or men are trained for the job. Materials for use in operation detail can be depended upon to be at the right place at the right time.

School-board members and public school educators would do well to evaluate carefully army teaching materials and techniques. There is no argument that the armed forces have carried on an effective job of training. Yet the fundamental objectives, the influencing circumstances, and the intrinsic elements in military planning are so different from those which we should and supposedly do obtain in public education that it would be nothing less than a catastrophe if we were to adopt army techniques on a wholesale scale. If the army-training manuals were to be scanned, the reader would find a faithful repetition of many of the ideas found in the textbooks and professional literature of elementary and secondary schools since 1890.

Perhaps the publicity given to the armed-forces training program has added a few starry constellations that exist only in the stratosphere. On the other hand, there are many civilians, including school-board mem-

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They were serious young men who attended college under the Army Specialized Training Reserve Program.

bers, some army people, and a few educators who sincerely believe that the simplest way to improve the public schools is to turn them over to the educational organization of the armed forces. Certainly we cannot afford to bury our heads in the sand when we learn of the apparent success of training methods and techniques devised by the military. On the other hand, let us with judicious minds consider their application to our present and future elementary and secondary school programs. Numerous former teachers are returning from the ranks; their firsthand experience should, to a large extent, assist in the selection of "ideas" to be saved and those to be discarded. We hear much of postwar school planning. The number of cities and villages with an organized postwar program of curriculum revision is still small, yet many municipalities have elaborate plans for new buildings. There is no doubt, however, that we shall have

to change some of our patterns in education to meet the conditions ahead of us. We should be at the business now, for in a large sense, we are already in the postwar world.

Hazy vs. Definite Goals

In addition to outlining specialized training procedures, the army has presented to its personnel certain characteristics that we in academic education have, in some instances, slighted. It has been obvious that our objectives and goals have been and are still poorly defined. The armed forces, on the other hand, have set standards high, but they are understandable. There is neither time nor place for errors or an incomplete assignment. Most significant is the high placement of morale and its continuous emphasis. Each individual, platoon, division, and so on has been able to develop a clear concept of their relation to one another and to use the ability to work as a team. Herein lies a challenge to school boards and administrators in organization of staff and departments.

Our academic programs for years have suffered from lack of integration of subject matter and departments. Much of the blame can be attached to personnel who fail to expand beyond the boundaries of their own fields. The world of tomorrow is bound to be conscious of the industry, customs, culture, and languages of all nations. Speed of travel and communication, not to mention television, will open new vistas to a better and more complete international understanding. The G.I. of today has traveled over much of the globe. He is going to demand that our schools and colleges more widely adopt courses in international problems and understanding. Members of the present armed forces have no desire to place their sons and daughters in another world-wide conflict.



Students in General Science at the New York Mills High School making a daily check on the weather as part of their training to become meteorologists.



Taps has been called for the A.S.T.R.P. classes and American colleges will return to civilian programs.

— Photos courtesy Hamilton College, Clinton, N. Y.

Despite the vast array and coverage of the army educational program, many of their offerings and improvements applicable to the academic level are, since the cessation of hostilities with Germany, open to inspection. Technical developments, because of military necessity, cannot be revealed until Japan is defeated. Outstanding progress has been accomplished in many fields, including visual and audio aids, foreign languages, science, testing, guidance and others.

The outstanding contribution which the military has made in educational practices lies in the field of visual and audio aids. Included are slides, film strips, motion pictures, recordings, plus an immense assortment of incidental equipment. It is conservatively estimated that students acquire information 30 per cent faster and retain knowledge gained 50 per cent longer through the use of such training devices. It is known that the armed forces in co-operation with the U. S. Office of Education have already completed three hundred million feet of 16mm. film, needless to say, a remarkable achievement.

Recently, a catalog of government films available to the schools has been compiled jointly by the U. S. Office of Education, the U. S. Department of Agriculture, the Navy and War Departments. Six hundred eighty-three visual aids will be of paramount value to education in peacetime. An examination of these films and film strips indicates that over 90 per cent of the subjects deal with basic skills and understanding.

Radio and Television

Radio plays an important part in army training. Television, its counterpart, seems destined to occupy an important niche in postwar science. Excellent technical instruction is provided by the armed forces. Many of our boys and girls will have unusual vocational opportunities with FM and television in the postwar era. Chicago public schools are already doing much pioneering. A three-way experimental arrangement has been worked out by the Radio Council of Chicago Public Schools, station WBKB, Chicago's only television station now in operation, and a manufacturer of radio and television sets. Students with the necessary talent and aptitude are gaining valuable experience in preparation for the time when television will become a medium of effective classroom instruction.

Army trainees have even received special instruction in the use of a microphone, the armed forces having found many vital spots for the use of this device. The walkie-talkie is destined to occupy a strategic place in tomorrow's system of communication. Police and fire departments, engineering concerns, operators of large trucking outfits, forest rangers, and others too numerous to mention will be eager to take advantage of this device.

Recordings have been used to advantage, particularly with language groups. In many instances, recordings have been co-ordinated with film strips and slides. It should be emphasized that trained personnel is funda-

mental to any extended audio-visual program. The armed forces have trained some personnel for this work. Obviously, the teachers' colleges should enlarge their curriculums to provide greater opportunities to prospective instructors for the most effective approach in utilizing audio and visual aids.

Many educators have taken a keen interest in the armed forces foreign language program. Its success has been by no means a miracle; rather, persistent hard work. It is a widely accepted experience in army circles that mastery of a foreign language by students in the ASTRP program is due largely to: (1) small groups (usually ten trainees), (2) intensive practice in oral usage, (3) language spoken at all times as far as feasible, (4) an ample amount of time scheduled for conversation. Recordings have supplemented instruction. Many public school instructors shudder with horror at the teaching of such courses under G.I. conditions. Naturally, the public schools will wish to adapt whatever is feasible for the academic program, but it must be remembered that the army was interested in speaking and understanding skills rather than perfection in grammar.

Science, under the army training program, includes several fields: electronics, meteorology, astronomy, chemistry, physics and others.

Radar has been a potent weapon as a spotting device. Electronics, in the future, will be used in a variety of ways to serve the purposes of mankind in peacetime. Certainly, there will be increased benefits in new industries and vocations developed by electronic developments.

A number of colleges, in co-operation with the armed forces, have initiated courses in meteorology. This subject covers all types of weather conditions and observations through terrain effects. General science classes in our public schools will receive increased benefits from the pioneering already accomplished. Future young fliers are going to tackle basic science courses with renewed vigor. It must be repeated that very few details can be revealed relative to other scientific discoveries and applications until the conclusion of the war in the Far East.

The Armed Forces Institute

Much has been said about the United States Armed Forces Institute. It is known that more than 300,000 men are enrolled in correspondence courses. Several thousand are also enrolled in regular classes. Under USAFI, correspondence and self-teaching courses with equivalent tests and credit are available to service men. Most public schools are granting academic credit for subjects completed through USAFI. Many secondary institutions have forwarded USAFI Form 47 (application for credit for educational achievement during military service) to former students now in the armed forces. Thus, many boys have been encouraged to complete their high school educations; others have obtained college credit, and many have received knowledge leading to better vocational opportunities upon discharge. It is doubtful whether many servicemen whose educations were interrupted by induction into the armed forces will return to the secondary schools. Most veterans will return to former occupations, colleges, or business and trade schools of advanced grade. Many soldiers at

(Concluded on page 84)

Looking Ahead to Postwar School-Building Needs *Zed L. Foy¹*

When the war is completely won and peace has come, how shall the schools be related to the problems of postwar adjustment and rehabilitation? There is a rising tide of public planning and the many agencies concerned with this problem show a diversity of planning for postwar needs.

Consider briefly some of the problems which schools face today. Conditions differ in each community but the general pattern is usually the same. There is the onrush of a new young generation to be schooled. New residential areas are without adequate school facilities. The accumulated obsolescence of old buildings is increasingly apparent on every hand. The impact of the war has transplanted thousands of families into new work in strange communities, and courses of study have been rapidly changed to enable workers young and old to make their maximum contribution to the war effort in the shortest possible time. Manifold problems of personnel, finance, equipment, operation, and maintenance beset us at every hand. Capital outlay programs have been suspended. PWA which provided the last building program for most school systems served a purpose but did not fulfill all the building needs. Our school buildings are growing old.

In looking ahead to postwar school-building needs, we shall deal with three main aspects of the problem:

1. Why plan school buildings now
2. The problem in Boise—a typical medium-sized northwestern city
3. Some suggested procedures in looking ahead to postwar school-building needs

I. WHY PLAN SCHOOL BUILDINGS NOW

The following 12 reasons are largely self-explanatory. This list is neither complete nor arranged in order of importance but taken altogether it presents a strong case for planning postwar school buildings now.

1. Many agencies are making plans for postwar construction and reconstruction. More than two hundred organizations in practically every state have definite postwar planning programs. The emphasis varies with the type of planning agency, but broad social and economic values seem to be the dominant objectives.

2. Plans for school buildings should be intimately related to the local master plan of community development. Within the past year a midwestern city of 12,000 population gained nationwide recognition for a postwar plan which included agriculture, employment, financing, consumer markets, and public works, but at no place in an explanation of the plan

were education and the schools of that city mentioned.

In contrast, the city of Eugene, Ore., not waiting for Santa Claus to arrive from Washington, has its city-wide postwar plan well under way. Heading the list of a stock pile of jobs for returning soldiers is a \$1,500,000 high school on a 70-acre plot already purchased. By a vote of 10 to 1 the taxpayers have authorized the collection of money to be ready to build as soon as possible after the war is over. Jobs for returning soldiers in the construction of that high school? Yes, but more important and more significant, a fitting memorial to the lost and returning boys who risked all to preserve our way of life and the educational system which typifies and perpetuates that way of life.

Enumerated as worth-while improvements in a typical city-planning-commission plan are: the airport, art gallery, bridges, building codes, cemetery, city hall, fire protection, garbage disposal, gulches, health protection, recreational facilities, rivers, sewage disposal, sidewalks, and streets. The improvement of these facilities and conditions will surely make a better city, but ultimately each citizen who is attracted by such earmarks of a good city will ask, "Where is the nearest school?" "What kind of a school is it?" The schools are a vital part of any community and should be included in any comprehensive plan of community development.

3. School buildings have a logical place in the consideration of a total shelf of postwar public works projects. Unless school boards are ready with needed building programs after the war, they may find themselves seriously hampered by the preference given to other public-works projects of lesser social value that are ready for immediate construction.

4. Expansion of desirable public-works projects will help reduce the amount of threatened unemployment during the period of demobilization. All are agreed that the shift from a wartime to a peacetime economy must not be too abrupt. A shelf of desirable public-works projects will aid materially in this difficult transition.

Extensive Programs Now Needed

5. An extensive program is necessary to remove the accumulated deficiency in new school construction. By the time an orderly flow of building materials again reaches the average community, there will probably be an accumulated backlog of five times the annual need for new construction and remodeling. The most pressing need should therefore be identified and analyzed in order to justify a part of the first supply of building materials and equipment which becomes available.

6. One positive by-product of the war and

the improved economy is a greatly accelerated birth rate. The number of births reported in Boise has increased from 648 in 1934 to 1241 in 1943, an increase of 91.5 per cent in the ten-year period. This increasing number of small children to be educated during the next few years has profound significance for the schools.

7. To make schools conveniently available to newly populated areas is important. The new school for the new residential area is overdue. In the final analysis it is as economical to take the new school to the children as it is to take the new children to the old school.

8. There is need to narrow the widening gap between old and obsolete buildings and a constantly changing and improving educational program. The difficulty of conducting a modern educational program in an antiquated building is too obvious to require elaboration here.

9. It is most important to avoid the inevitable mistakes of hurried up building programs. The PWA conceived in haste, and executed in greater haste, in an unbelievably short time and without benefit of early planning produced some good schools. Government officials were in accord then, and we agree now, that a more thorough planning procedure would have produced superior results at less cost. It takes time to do a careful and thorough job of planning a school which must last a long time.

10. New school buildings are necessary as a means of saving, not spending money. The Houston, Tex., Planning Commission estimates the cost of planning as 1/10 of 1 per cent of the money to be invested. Plans too hastily drawn overlook many desirable features that come to light as construction advances. The later addition of these features necessitates labor and material costs which could have been avoided if the necessary changes had been embodied in the original plans. If planning begins now there will be ample time for review and reconsideration of original plans before construction begins. It is a wise school board which takes as long to plan and revise the plans of a building as it does to construct and dedicate.

11. We must assume responsibility for planning our own way of life in local communities and by local subdivisions of government. Local planning co-operatively undertaken reflects the aspirations and ideals of the people, and many of these local plans will become inspiring realities. Some day a government agency may come to your local community and offer to make a complete survey by a previously established formula. How satisfactory it would be to say, "We have made a survey of our own community in our own way; we know its needs and we are prepared to satisfy these needs on our initiative and at

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our own expense." Federal aid may be available on a satisfactory basis, but we should be prepared to move ahead without it.

12. The twelfth and final reason for planning now is to give the superintendent a part-time job. Planning future facilities for a constantly changing program is a challenge to the courage and ingenuity of any schoolman. A definite plan will provide a good excuse to plead a previous engagement when certain committee meetings are called and ample justification for a half-hour or more of daily seclusion to concentrate upon the problem. We find time for the things which we think are important.

II. THE PROBLEM IN A TYPICAL CITY

Let us now briefly review the problem in a typical, middle-size northwestern city. All of the reasons for planning which have been enumerated apply in greater or less degree to the total problem in Boise. In other towns the problems, no doubt, are similar.

Boise school district has a total population of approximately 30,000, a school enrollment of over 6000 in 10 elementary schools, a junior high school, and a senior high school. There are 18 school units; 16 are in active use, and two have been abandoned. The dates of construction of buildings range from 1896 to 1936, with an average age of 28 years. The average elementary school has an enrollment of 325.

In three elementary school districts the growth in population has exceeded the school-housing facilities. Temporary rooms are in use at two schools. The total enrollment in the first three grades has increased by more than 300 or 19.3 per cent in the past two years. Increased school enrollments because of increased births will reach into the fourth grade this year, into the junior high in 1947 and the senior high in 1950.

One elementary school of 8 rooms has 6 portable classrooms surrounding the main plant. Our bonded debt is \$768,000 and the assessed valuation is \$21,000,000. For two years we have been engaged in a planning program for improved school facilities. Four reports have been made to the board of trustees. The first report in December, 1941, entitled "Preliminary Considerations Regarding a School Building Survey for Boise" sought to acquaint the board with the various phases of the local problems with special emphasis on "where the children live in relation to the schools they attend," "an analysis of the present physical plant," "residential growth trends," "possible new building sites," and "essentials of a developmental program."

The second report, "Proposals Regarding Permanent Improvements to Plant Facilities" in March, 1942, outlined the major and minor improvements needed to improve existing facilities. In October, 1942, the third report entitled "Proposals for a Building Planning and Capital Outlay Program" set forth the building needs of the district by virtue of (1) increased enrollments and listed four major projects; (2) needs as replacements of present buildings with three major projects suggested; and (3) needs as a result of normal

growth and development with four projects suggested. These projects were rearranged into a Phase 1 program to be completed by 1946 if possible; and a Phase 2 program with a suggested time limit of 1946-51.

The fourth report in May, 1943, entitled "Suggestions for Improvement in Plant Operation" set forth the changes desirable for improved efficiency in plant operation and maintenance.

A building committee of the board was appointed in the spring of 1943. This committee has been actively engaged in serious study of the various phases of the problem. The most recent report to this committee was a "School Enrollment and Population Study" for the school district, showing the number of school children anticipated at various grade levels each year up to 1950. A special study was made of anticipated enrollments in the three elementary schools which are now overcrowded. Other reports in preparation, with two well under way, are, "The Problem of School Site Selection and Acquisition," and "A Program of Primary Education for Boise."

Our problem in summary is twofold: (1) a constant evaluation and modification of the educational program; and (2) a building construction and remodeling program to more adequately house the educational program.

There are two contrasting philosophies related to building a school. The first: construct the building; then decide what is to go on inside. One person usually does all the planning. Subsequent remodeling is expensive and difficult. This may be called the "build in haste and repent at leisure" approach. A second contrasting philosophy: decide upon the purposes to be served by the building and plan it accordingly. This takes a longer time and implies a co-operative undertaking. It may be called the "forewarned is the forearmed" approach.

We in Boise are definitely committed to the last named approach. We realize it will take a long time to become acquainted with the various aspects of the problem and decide upon the best approach.

III. SUGGESTED PROCEDURES IN LOOKING AHEAD TO POSTWAR SCHOOL BUILDING NEEDS

We now come to some suggested procedures in looking ahead to postwar building needs. Lincoln once said, "If we but know where we are and whither we are tending, we can better decide what to do and how to do it."

How then shall we proceed in planning school buildings for postwar needs? The twelve suggestions given here are not inclusive, neither are they listed in order of importance nor suggested with any idea of chronological sequence. Some may apply to the reader's situation and some will not be practical. Each school community must develop its own formula for dealing with its peculiar problems.

1. One of the starting points is an evaluation of present plant facilities. Such items as accessibility, adequacy of size and needed services, arrangement utility, possibility of rearrangement, possibility of expansion, and other minor features should be taken into ac-

count in passing judgment on present school facilities and future needs.

This evaluation and appraisal should point toward (1) remodeling projects to increase the efficiency of buildings which will continue in use, (2) toward additions to present facilities to increase their capacity and usefulness, and (3) new units to replace obsolete structures or to serve newly populated areas.

The method of appraisal should be a combination of the use of a score card and a consensus of opinion. By all means get reactions from staff members about the usability of buildings. One principal said, "Our school seemingly was built without consulting anybody whose duty it was to use the building daily." If necessary, and as a final step, call in an expert to invoke the final death sentence.

2. A second important procedure is a study of the population and school enrollment. The increase in population for a given area is usually interwoven with the economic and social developments of that area. Forces at work today have a relationship to those which have operated in the past and will in all probability be the determining factors causing population changes in the future. Simple mathematical procedures may be used to project population estimates into the immediate future, keeping in mind that the more remote the date the less certain is the possibility of estimate.

Officials responsible for school planning should therefore study national population trends and compare them with the best available local data. Taking national population trends into account, according to Reeves,² there will be an increasing school enrollment from 1946 to 1956 and the trend after that will depend upon what happens to the birth rate. The greatest increase in school population is now in the primary grades and preschool levels. If the present trends in Boise continue, by 1950 we expect more than a 50 per cent increase in our elementary school enrollment. Obviously the greatest need for new school facilities is at the lower grade level. The boom in baby business has produced "children unlimited." The sooner the war ends, the more young people of high school age will return to complete their schooling.

3. Site planning and acquisition are increasingly difficult problems. Even in the days of plentiful land, schools were built on inadequate sites. Modern education demands more space inside and outside. Site planning should therefore proceed simultaneously with building planning. In order to build schools where the children are, sites must be selected and purchased early. Delay until the land is acquired by other interests invites additional expense and educational discomfort. Distribution of the school population, residential growth trends, transportation facilities, and safety hazards are some of the items to be taken into account, but accessibility to the pupils concerned is the primary consideration in the selection of school sites.

The Co-operative Approach

4. The planning of school buildings offers

²"Outlook for School Population of the Future," Charles E. Reeves, SCHOOL BOARD JOURNAL, February, 1943, p. 40.

rich opportunities for co-operation within the school system and with outside groups and agencies. Where possible, school boards should be represented on city planning councils. The interests of the city and the school system converge at many points, especially in recreation, health protection, safety hazards, transportation facilities, and all the cultural aspects of a city's development.

The potential help available within the school staff should be utilized. There is no better group of people to help plan a program of primary education than the teachers who are working daily with young children. Discuss the problem with the staff, get them interested, and ask for their suggestions. True, all suggestions will not be usable but some valuable contributions will be made.

The selection of an architect should be on proved ability in the field of school architecture and not because he is a native son or a personal friend. He should be a man who can catch the spirit of the educational program and weave it into his building plans. Educational standards as well as architectural standards should be incorporated into the new building.

5. What educational specifications do you have for your new school? The building cannot be conceived apart from the educational program. A school building should be more than pleasing to the eye from the outside. There should be the feel and the atmosphere of the educational program on the inside. The educational life of a school can be badly cramped even in a new building. Plan what is to go on inside the building and help the architect translate the spirit of your plan into the building. We can no longer think of education as a teacher plus thirty pupils, plus books, plus a bank of windows letting light into a classroom over the left shoulder. The educational program should take into account the necessary tools of learning, both new and old, which make a functional program, the course of study content, and the new subjects of study which will be needed in the days to come. Each room should reflect the atmosphere of the educational activity which goes on there.

6. Building standards and codes deserve attention. Just as educational specifications should be planned and checked, so should the standards for rooms, light, heat, health, safety hazards, etc., be checked by the most rigid standards available. The National Council on Schoolhouse Construction has made an invaluable contribution in this field in "the establishment of reasonable standards for school buildings and equipment, with due regard for economy of expenditure, dignity of design, utility of space, healthful conditions, and safety of human life."

The 1942 proceedings of this Council include a section on "Factors Pertinent to School Plant Planning." This set of school-building standards has developed out of the experience, research, and specialized training of the members of the Council. Constant study is given to changing factors and conditions which result in necessary changes in building standards. The work of this organization is particularly significant now as it affects current and future developments in school plant

planning, design, construction, operation, and maintenance. The standards evolved by the Council might well become the "Builder's Bible" in the postwar planning for school-building needs.

A word of warning is in order with reference to statutes affecting school-building codes. It is quite possible that state building codes will need to be brought up to date to encourage better educational service, true economy, safety features, the use of newest materials, and the formulation of broad basic controls. To this end, codes in the various states should be rigidly examined before the next legislative session so that plans for new buildings may not be handicapped by antiquated statutes. A nationwide study of building codes might well be made by some educational institution if this has not already been done.

7. Schoolmen everywhere can profit by the mistakes made in their own and neighboring school systems in the last building program. Go on a missionary journey and observe the fine and the weak points of other buildings, wherein the educational program is cramped by the building, and where educational values were sacrificed in order to cut costs. Learn about the headaches of other building programs in order to prevent future headaches of a similar nature. An exchange of ideas by schoolmen, short workshop conferences on the subject, and the leadership of educational institutions in the field will contribute to a solution of many problems.

The Super Problem: Finances

8. One of the most important aspects of planning school buildings is a complete study of all the financial obligations involved. The problem is twofold:

Our first responsibility is a detailed analysis of the present bonded indebtedness of the schools. Most school systems are saddled with the payment for school buildings which must soon be replaced. It has not been uncommon to hear of an old building razed before it is paid for in order to make way for a new building whose cost must be added to the balance on the old indebtedness. Now is the time, therefore, to get our financial houses in order against the day when an additional bond issue and tax levy will be necessary for new schoolhouses. Lowering the indebtedness now will improve the future credit record of the school district. The debt retirement programs should be speeded up while the money is available.

In the past two years the Boise district has refunded over \$600,000 of outstanding bonds at lower rates which will ultimately save the taxpayers more than \$100,000 in interest during the life of the bonds. Within the next three years we expect to retire approximately \$200,000 in bonds and more than \$600,000 in the next ten years. Some bonds held by the state of Idaho have provisions for retirement at any interest paying date. This optional feature enables us to pay off bonds ahead of schedule in planning for a new bond issue at an early date.

Fortunate indeed is the school system which has optional features in outstanding bonds so

that refunding can be made at prevailing lower rates of interest. There is much idle money ready to be invested in bonds of solid worth. The outstanding indebtedness must be taken into account when new debts are contemplated.

The second phase of this indebtedness problem is equally important. In planning new buildings, all of the costs should be anticipated. The major expenses, of course, are for the building and the equipment, but there are many incidental costs which must be taken into account. There is the expense of the bond issue itself with the election, the printing of bonds, and the legal services. Then there are certain costs involved in consultant services, especially if a survey is made. The cost of site, title, and land survey needs to be taken into account. There are numerous expenditures in connection with the development of the site and grounds. Certain miscellaneous expenses inevitably enter into the total cost. Unless all these costs are carefully analyzed and included in original estimates, the fine building will be badly adapted to its original purpose with cheap and inadequate equipment, or succeeding budgets for current operation will be overtaxed because these unplanned expenses were not anticipated.

Long and Continuous Planning

Every school district should make a long-time financial plan, subject, of course, to revision as needs arise. Present indebtedness should be projected into the future, showing where additional indebtedness can be incurred without financial hardship. The financial resources of the district, together with the ability and willingness of the taxpayers to pay the bill, are deserving of careful analysis.

9. A continuous capital outlay program is necessary in all but the smallest school districts. There is a vast amount of deferred repairs to existing facilities that need to be made to protect the original investment and forestall unreasonable expenditures in the future. Each school system should establish a policy of annual capital outlay to keep present facilities in good working order. As soon as possible we in Boise expect to return to the annual policy of at least one major remodeling project each year, and an annual appropriation for capital outlay of 2 per cent of the budget to offset normal depreciation.

10. Each administrator should collect his own literature on the subject of postwar planning.

Each superintendent should be on the alert for articles and references which will be of particular help in his own local situation. No doubt there will be forthcoming many articles in magazines and commercial releases which may be helpful on the subject.

11. Constant study of the community is advisable. There is increasing evidence that the new school of the future will be a community school. Community development can be controlled substantially by planning school buildings in terms of community needs; therefore community analysis is a sound basis for school-building planning. The school should be the center toward which gravitate all the

(Concluded on page 84)



View of the Vocational Machine Shop at Grosse Pointe High School.

Industrial Arts and Vocational Training Emerge at Grosse Pointe

N. Ray Watling¹

Back in 1940 the board of education of Grosse Pointe, Mich., recognized the growing need for more extensive vocational training and for general shopwork in the high school, and requested its administrative staff to plan a new shop building to be operated in connection with the high school.

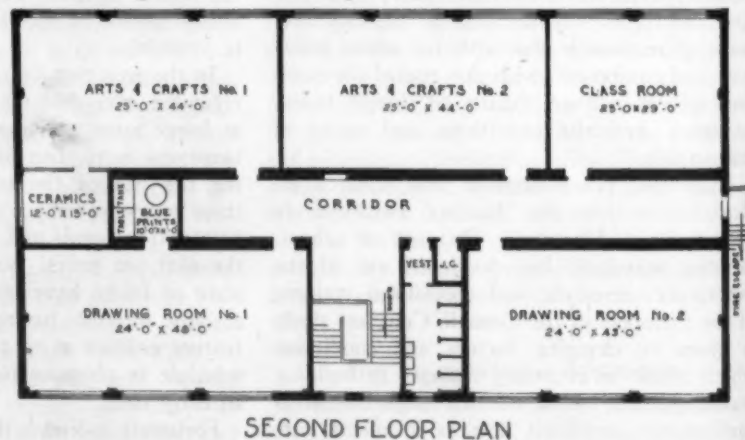
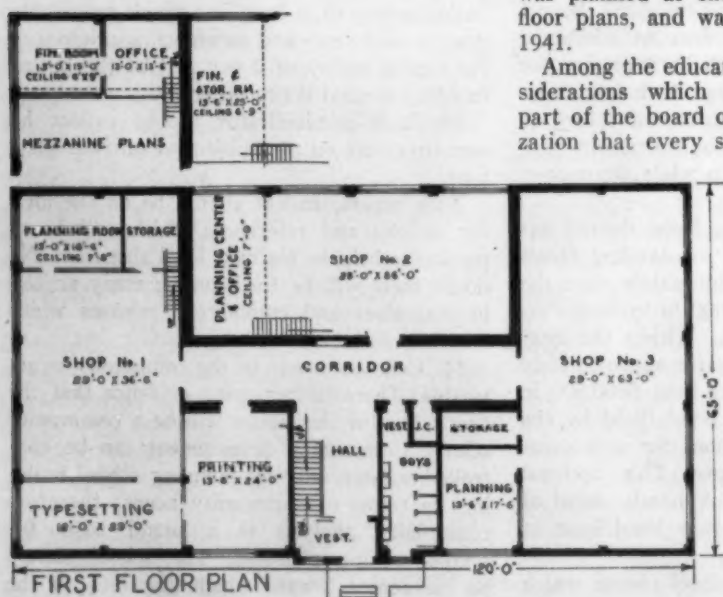
¹Head of Industrial Arts Department, Grosse Pointe, Mich.

A study of the local situation and of the probable expansion of the high school program suggested the development of three major shops—a junior shop, a senior shop, and a vocational or metalworking shop; two large drafting rooms with a blueprint room adjoining, a junior and a senior arts and crafts room and a large space where fundamentals of auto mechanics could be taught. The building was planned as shown in the accompanying floor plans, and was erected during the year 1941.

Among the educational and community considerations which prompted action on the part of the board of education was the realization that every student of the high school

needs to develop workable skills in some vocation before he enters upon an occupation. The World War was then in the making and the need of training students and adults for war work was fully realized. The high school conducts a well-organized work-experience program, which has contacts largely with the local metalworking industries. There was need, too, of more training for the boys going into the armed forces; finally, the school was placing great emphasis upon shopwork and related studies for pre-engineering students.

We entered our new plant on February 25, 1942, and were compelled immediately to establish a program of three continuous shifts. The high school classes met from 8:00 a.m.



to 4:00 p.m. and were followed by two shifts of five hours each of Defense Training classes sponsored by the Michigan State Board of Control for Vocational Education.

Approximately 875 machine tool operators and inspectors were trained in these Defense Training classes—two thirds of whom were placed on jobs in war plants.

The Industrial-Arts Program

Among the aims of the industrial arts and vocational programs of the Grosse Pointe high school, the following have been basic:

1. To enrich the student's experiences in as many fields of present-day materials used in occupations as possible.
2. To acquaint the student with the tools, materials, and equipment of each field and to develop skills in their use.
3. To aid the student in developing a fuller life through his accomplishments and appreciations developed by experiences in the industrial-arts work.



The welding shop uses standard equipment.



The planning room connected with the junior shop is equipped with reference material to help boys design projects which they will later develop.

4. To develop some working skills in the college preparatory student, and to enhance the high school work of the pre-engineering student with shop experiences that tie in with his study of mathematics and science.

5. To guide the student into the vocation or type of work in which he is interested and for which he seems well adapted.

How the Program Works

The shopwork offered for seventh- and eighth-grade pupils is planned to explore as many fields of the industrial arts as possible. During this exploratory phase of his work the student is taught some of the fundamentals of drawing and blueprint reading and the vital importance of the graphic language in industries and home life. He is acquainted with the simpler industrial and trade practices in using wood, metal, and other materials, and in the uses of electricity. He is taught some of the simpler skills of working these materials and tools, and he is taught some of the simpler skills of printing, particularly type setting and simple press work.



The drafting room provides advanced as well as introductory courses.

A careful record is kept of the student's progress and is tabulated each semester in connection with his record of the conferences between the guidance teacher and the boy. At the beginning of the ninth grade, these records are used to help direct the boy in choosing the more specialized courses which are open in the shops. Consideration is given to the probable direction of the student's education and his possible choice of an occupation.

If the student shows any capacity for a particular type of work and further is interested in the industrial-arts work, it is suggested that he carry forward the courses in shop and in drawing during the ninth year. This recommendation is made because the ninth-grade courses are fundamental for learning those elements of woodwork, metalwork, drawing, etc., which will apply in any field in which he may specialize.

The cumulative record is continued during the ninth and tenth years and is reviewed by the guidance teacher to help the boy adjust

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Planning Facilities for Health, Physical Education, and Recreation

W. K. Streit¹

Increasing public consciousness of the need for a higher degree of health and physical efficiency in our people which fortunately is resulting in making available public funds for building and remodeling plants, places squarely the responsibility for careful planning in the area of health, physical education, and recreation. Speculation as to postwar programs should be encouraged in the hope that it will lead to suggestions which will enable us to meet as effectively as possible the needs of the future. Those who do planning must make a careful analysis of present needs and study trends to determine the course of future needs.

Community as well as in-school-time use is a major function of school buildings and grounds requiring careful consideration and development. Increasingly, school grounds are being designed to provide for the varied recreation needs of children, young people, and adults throughout the entire year. In some instances this means that facilities are provided that would not be included if these facilities were restricted to school use alone. Fortunately, however, much the same areas and facilities are needed in both the school and the community programs, and in general the same fundamental principles apply in designing them for both types of use.

Public education is no longer a matter that concerns only children. A larger proportion of adults in our population are looking to the schoolhouses to serve community needs.

Since school buildings grow obsolescent and deteriorate in 40 to 70 years, public investment in a school plant should be charged with securing the maximum social and educational dividends during the half century of a building's existence. The widest use of its facilities for the education of all children and citizens is the justification for the expenditure of public funds.

Standards must be worked out jointly with the architects. The best results are obtained when requirements are studied by all those interested, including the teachers who are to use the facilities and the architects.

Standards which do not rise above present conditions will not improve present conditions. We cannot make progress by duplicating existing facilities, especially the mistakes which are made over and over again.

Specialized groups can give us the latest information with reference to lighting, heating, ventilation, landscaping, floors and playground, surfacing, fireproofing, plumbing, best materials for various purposes, and other details of a technical nature.

Curriculum and extracurriculum activities may develop interest and fundamental skills,

¹Director of Physical Education, Cincinnati Public Schools.

but much more of a program is needed if recreational needs are to be met. For school children, there is need for after-school, Saturday, and vacation programs. And there is need for recreation programs for the preschool and postschool ages. Schools may give leadership and provide personnel and administration for the entire community program of recreation and leisure-time activities.

Program planning and planning of building facilities are closely bound together. For example, if gymnasium and playground apparatus are considered essential in the physical-education and recreation program, it will be necessary to make provision for space, storage, and built-in-construction features. Thus, the activities to be taught or used at various levels will determine in part the space and facilities required.

A building for school and community use should have concentrated administrative control and supervision. Such a building will require an auditorium, a stage and rooms for drama and speech, multiple gymnasiums, a medical and clinical health unit, a health-education room, a swimming pool, a branch library, and rooms for home economics, vocational and craft work, and for art and music. All of these rooms should be readily accessible from the main entrance — and the main control. The day-school rooms not to be used for community purposes should be segregated, with separate heat and ventilation control.

For an elementary school ground, there should be a minimum of 5 acres, plus an additional acre for every 200 children enrolled. For a high school, there should be 10 acres, plus one acre for every 200 pupils enrolled. In addition to varsity game fields, there should be playground and multiple playing field areas and layouts for age, sex, and special interest groups.

We must consider the needs of the various groups at peak load periods, such as the afternoon intramural period. A study should be made of the number of groups to be served and the different types of activities to be included in the program. Outdoor areas that are functionally planned for physical education and recreation activities are not costly when compared to teaching space within the building.

Our task is to translate the curricular and social needs of the child and the community into numbers, sizes, and types of rooms and outdoor facilities; and to locate them so that they will be most convenient and usable for both the pupils and the community. We must take into account

1. The program to be carried on
2. Levels at which groups must be served
3. Ability of states and communities to pay
4. Climate and geographical location.

Results of a Questionnaire Study

In order to get a cross section of opinions from workers in the field, a questionnaire was distributed to State Directors of Physical Fitness during the latter months of 1944. A listing of probable trends, common mistakes, and desirable features was requested. Following is a summary of replies:

I. Probable trends in the fields of health, physical education, and recreation which have a bearing on planning facilities:

1. There will be closer ties between school and community programs.
2. Mass participation in athletics and physical education will require more equipment, fields, and plants.
3. There will be more intramural sports because not enough pupils are reached by inter-school athletics.
4. Better trained teachers are needed to carry on the expanded program.
5. Physical education will receive credit and will be required for graduation.
6. Time allotment will be increased and a daily program become universal.
7. There should be complete separation of boys' and girls' units so that their programs will not interfere. Girls and boys should receive equal consideration when facilities are allotted.
8. Outing and winter sports will receive additional emphases and will require facilities.
9. A sound program of physical education will be carried on throughout the grades.
10. There will be a demand for less expensive sports equipment.
11. More individual and dual-type activities for school and community use will be stressed.
12. There are definite indications that coeducational types of physical education and recreation will increase.
13. More functional instruction in health especially in the high schools is clearly needed.
14. Programs for the discovery and correction of health defects will become essential.
15. Achievement standards for each grade level and for various levels of ability will be set up and students will be held accountable for results.
16. Improvement in physical fitness will become a more important goal. The strenuous participation required during the war era will not be lost. Meeting of basic fitness standards will become a prerequisite to election of activities and probably to participation in inter-scholastic athletics.
17. There will be more teams in more sports.
18. Many teachers will return from the war better trained in physical education, with a better conception of a balanced program.
19. The school day will probably be lengthened and teachers will be engaged in shifts between the hours of 8:00 A.M. and 10:00 P.M. The school year will also be lengthened, and camping opportunities will be provided.

20. More and better medical services are indicated.

21. Expansion in programs to serve the needs of all students is a certainty.

22. A more extensive system of keeping records will become characteristic of good departments. These will include:

- a) health examination findings
- b) physical fitness scores
- c) data on physical abilities and traits
- d) records of participation
- e) interests

23. Industry will employ teachers of physical education and recreation, and this fact, in turn, will result in the need for and use of school and community facilities by industrial workers.

24. Improved vocational guidance and better screening of major students in teacher-training institutions will result in better teachers.

II. A List of Some Common Mistakes in Planning Which Have Hampered Teachers and Classes:

1. Playing courts, especially basketball, not large enough
2. Inadequate shower and dressing room space
3. Inadequate drying room or none at all
4. Poor lighting, ventilation, insulation
5. Lack of unit planning
6. Too many small rooms
7. Lack of natural lighting (southern exposure)
8. Not enough storage space for equipment and often not accessible
9. Inadequate provision for girls' facilities
10. Ceilings too low for basketball and volleyball
11. Too little space for spectators
12. Giving architect full authority to plan and execute in a field in which he may not even be remotely interested or informed
13. Doors into storage and apparatus rooms too narrow
14. Lack of laundry facilities
15. Lack of team rooms, check rooms, and toilet facilities
16. Not planned for uses to which they are actually to be put. Completed plans should not be set up by the architects until the instructors who are to use them have been consulted and permitted to outline the necessary purposes and uses.
17. Floor plans are not set up in advance for various activities. Safety factors are overlooked.
18. Swimming pools are not provided with spectator space; hence, outsiders with street shoes cannot be segregated or prohibited from walking on deck.
19. Putting lockers and showers in dark, poorly ventilated places
20. Failure to provide office, shower and dressing space for instructors
21. No filters for swimming pools
22. Ceilings of swimming pools too low to permit diving
23. Failure to include pipes for suspended apparatus

III. Desirable Features Which Should Be Kept in Mind

1. Function.

The school facilities for health, physical education, and recreation should be so planned that they can be used for community activities at any time when they are not used by the

school. They should also be planned so that co-operative programs between community recreation groups and school groups can be carried on or so that the schools can put on community recreation programs of significance when so desired.

From the standpoint of the school program, facilities should be planned with a long-term view of carrying out the functions of health service, provide optimum physical environment, and give opportunity for educational experiences in health and in physical education best suited to prepare students to live in the community.

The entertainment function should be secondary to the educational purpose. We should serve the community for twelve months instead of nine.

2. Types of Facilities, Size, Number, Construction.

Facilities should be planned primarily for school use and should not be so modified as to interfere with this primary purpose. They should also be planned so that additional activities of the community recreation program can be carried on so long as they do not interfere with the school program.

Physical arrangements should be such that they will stimulate participation instead of making it a chore.

Gymnasiums, apparatus rooms, handball courts, swimming pools, field house, skating rink, football field, tennis courts, track, cross country course, golf course, bowling alleys, fields for multiple uses, baseball fields, handball and squash courts, rifle range, dressing-locker-toilet facilities, laundry, and others, in various sizes and numbers depending upon the community to be served, size of school, climate, and other factors should be considered.

Sealed, maple floors were mentioned as being most desirable.

The construction of the physical education areas should be of the very best possible, using safety as the first consideration, durability as the second.

3. Location and Accessibility.

There should be a definite attempt to locate these facilities in such a manner as to make them accessible to as many as possible in the community without undue difficulty. This means that smaller elementary schools should have buildings and grounds planned for use of larger groups and located so as to require more travel if necessary. Senior high school facilities will be more likely to be used by groups involving the entire community or a major portion of the community in their vicinity, so that accessibility is secondary to adequacy of size, number, and construction.

The terrain should be as level as possible.

The location of the gymnasium facilities should be in one wing of the building with unit heating, outdoor entrances and exits, and having the southern exposure to secure best lighting and most cheerfulness.

4. Relation of Units.

The health, physical education, and recreation units should, as far as possible, be contiguous.

The supervision of the gymnasium and locker rooms should be considered in placing the instructor's office.

The shower baths should be between the locker room and the swimming pool. Toilets should be located on the locker-room side of the showers. There should also be a drying room between the showers and the locker room.

All units, including fields, should be in as

close proximity to the gymnasium and field house as possible.

Field facilities should be located in such a way that passageway through the gymnasium is not necessary.

5. Offices, Storage, Provision for Spectators, Locker-Shower-Drying Rooms, Toilets, Team Rooms, Outdoor Areas, Health Units.

Offices — The instructors should have access to the various units with a minimum expenditure of time and effort. The number of offices will depend upon size of school and its organization with regard to health, physical education, athletics, and recreation.

Storage — This is one of the most neglected and yet important aspects of planning. Equipment is lost or abused when not in use unless there is storage space. Keep in mind movable apparatus and mats, athletic supplies and equipment, bleachers, towels, medical supplies, etc. Outdoor equipment should have its own field house, if possible, for storage during the season of its use.

Spectators — Not only should provision be made for spectators who attend athletic contests but for all phases of community activities, including demonstrations and pageants. In planning a gymnasium, swimming pool, or athletic area, adequate plans for the care of spectators should be made simultaneously. This includes handling them for entering and leaving, sale of tickets, ushering, and visibility from any seat. In order to conserve space, roll-away or folding-type bleachers which can be handled by one individual should be considered. Built-in balconies are also desirable.

Locker, Shower, Drying Rooms — Locker and shower rooms should be planned to give every student in the school opportunity for healthful and sanitary care of his body and clothing. The rooms should be well ventilated, large, and with surfaces to facilitate cleanliness. Shower rooms should be in proportion to peak load. The drying rooms should be between locker and shower rooms. Consider the use of small lockers in proportion to large, at about a proportion of 6 or 7 to 1. The basket system is also practical.

Toilets — They should be well ventilated and of such structure as to resist wear and marking. Mirrors should be placed at some distance from wash bowls to speed traffic.

Team Rooms should be planned so that they can be used as supplementary rooms for school or community groups. They should also be planned to provide isolation of a group when necessary but allow common use of showers and other facilities so as to promote social interaction between those participating.

Outdoor Areas should be planned on a functional basis, not forgetting beauty, order, and general attractiveness. Nationally accepted standards should be used.

Health Units including the doctor's and nurses' office, examination and first-aid rooms, and rest rooms should be in or near the gymnasium wing. Health-instruction classrooms, with models, movie equipment, and other necessary facilities should also be easily accessible.

6. Other Features.

Consideration should be given to such facilities as additional classrooms, a trophy room or wall space for framed photographs arranged in slots and tiers, the use of folding and soundproof doors to separate gymnasiums, electric score boards, boxing and wrestling rooms, corrective exercise room, and an auxiliary gymnasium.

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BEGINNING AN IMPORTANT SCHOOL YEAR

THE happy suddenness of V-E and V-J days means for the schools and colleges of the United States a complete redirection of activities, a welcome but troublesome complication of problems of reorganization and reconstruction and a re-examination by the school boards and their executives of the whole range of the local school programs and of the policies of elementary and secondary education.

In the immediate future it is likely that the pressing problems of returning the veteran to civil life, of reconversion of industry and business to peacetime service, of preventing inflation, and of readjusting the whole social and political scheme to normal American living—all these preoccupations of people and press will cause impatience with the needs of the schools. In fact, it may not be unlikely that the demand for lower taxes and for the deflation of the endless governmental agencies may cause a mild reaction against school costs that will take vigorous action by school boards for the maintenance of the newly needed services and the continuance of the inevitable higher salaries and operating costs. In this connection it will be useful to recall the valuable emergency services rendered by the schools and endless sacrifices made by administrative and teaching staffs.

Possibly the first tasks of school boards and their executives will be the restudy of all the long-range plans of postwar activity developed since December, 1941, and to put into action those elements of the immediate programs which seem feasible in the light of current opinion and of the felt needs for improved secondary education, fiscal readjustment, and school plant improvement.

In readjusting the policies of school systems relating to the externals of education, the school boards may be inclined to drop some of the gains caused by wartime conditions. Teachers, administrative officers, and nonteaching staff members will be returning in numbers to the schools, but it is not likely that the staff shortages in low-salary areas will be relieved. It will be a serious loss to the schools if the liberalization of policies relating to teach-

ers is not fully maintained particularly in the matter of salaries, sick leave, tenure, retirement, and constructively helpful and friendly supervision.

The problems of repairing and expanding the school plant will become progressively easier as materials and labor can be re-directed into the construction industry. The problems of doing adequate jobs in this field will require considerably larger sums than the total savings of the past five years in the repair and building budgets for the simple reason that deterioration over so long a period grows at a geometric ratio.

There is hardly space here to discuss the immediate problems of readjusting the financing of the schools. The present surpluses should give no school district a false sense of security—the first peacetime depression will give the tax racketeers cause to cry for reductions in school outlays. The most skillful use and even expansion of local and state sources will be needed. The greater the part school authorities take in tax planning and the better their understanding of the probable effects of shift of public sympathy toward all types of social security and old-age taxes, the less the danger to the schools. In this connection any legislation that will insure economies from school district reorganization, enlargement of attendance areas, and shifting of burdens to the state-wide areas will be valuable.

It is not the purpose here to discuss the internal of elementary or secondary education except to suggest that the collapse of Japan has come so near the reopening of the school year that extensive reorganization in the school services can hardly be made until the end of the first semester or of the school year. Endless minor changes in teaching content and in immediate objectives of courses will be made unconsciously, but the deeper problems of redirecting especially the high schools will gain in their solution from the time which executives and staffs can give to them during the winter. The gains made during the war will be maintained unquestionably in such fields as physical education, mathematics, the shop subjects, and possibly the modern languages. But will the secondary schools maintain the wartime momentum of citizenship education, of the fine gains made in the social sciences? Will there be backbone enough to prevent the overbalancing of the cultural by the purely prevocational and vocational subjects? Will there be courage to do something fully constructive for the moral and even the religious education of youth? Will the record of juvenile delinquency during the war years be forgotten? And will the schools demand that

the home fully resume its duties toward children?

The education of veterans is not likely to concern the local school systems below the college and the occupational school levels. The adult services of the schools have a real opportunity to do a job in this field. During the present school year the entire night school program and the adult school services will require immediate adjustment to help in the industrial reconversion, to retrain workers for peacetime occupations, and to provide activities that will replace the wartime preoccupations and fill in the new leisure time created by short work days and even unemployment.

POSTWAR SCHOOLHOUSING

THE sudden coming of V-J Day has brought large numbers of school boards and their executives to the realization that their postwar building plans are still in nebular condition and that they must suddenly make frantic haste if they are not to be hopelessly unready when labor and materials are again available. It can hardly be said that ample warning of the need of planning for postwar school building planning was not given. The educational press has been full of warnings and suggestions on planning so that any school executive could have taken prudent action and developed a program for his community even to the blueprint stage.

All that can be said concerning postwar planning at this time is that prompt action and thoroughness in both educational and building planning are essential. The educational reconstruction which is to be undertaken deserves to be formulated both in terms of new objectives and services and in practical details of school and class organization, teaching methods and aids, and instructional content. From this point on, superintendents and architects can proceed to carry on the complicated tasks of planning the several departmental areas, the individual rooms, and special services, and the total layouts. It should be remarked that some of the planning which has been observed during the past year has been marked by failure of the superintendent and his associates to study the details of plans and construction and to accept incomplete and wasteful proposals from rather inexperienced architects. If the school executives expect that the postwar buildings will be truly functional, economical, and flexible for the expansions in the school services which are likely to come, then they must themselves master the problems of plan, of construction materials, of mechanical equipment, of permanent furniture and equipment. Unless they

are willing to do this, especially in middle size and smaller communities, they had better turn over the entire job to their business managers or to a competent board committee and rely on one of these for the solution of the problems.

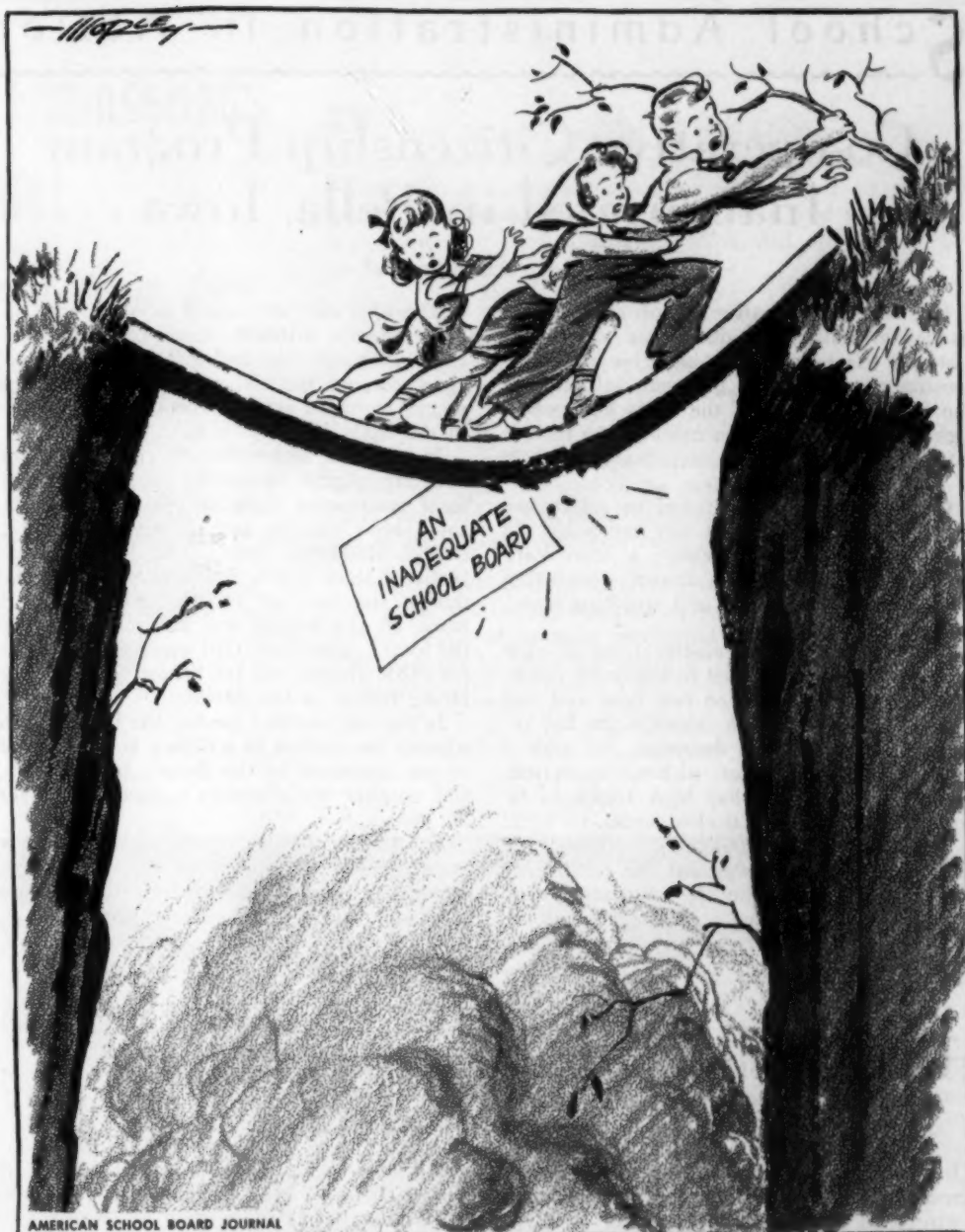
On the financial side, school boards who have worked in the past six years to set their houses in order will be in a happy situation to find funds for needed building expansion and replacements. The pay-as-you-go plan of meeting capital outlay needs is more appealing than ever to prudent school and municipal authorities. Where bond issues are needed rather prompt action is desirable — interest rates are at the lowest point in American history and voters are more willing to vote issues which are justified in local public opinion.

LITIGATION FOLLOWING DISMISSALS OF TEACHERS

THE litigation following the dismissal of teachers and school executives has risen in recent years, due largely to the increased dependence of teaching personnel on the protection of the tenure laws. The spirit and the administration of these laws have provided a type of security which leads the teacher whose job is under fire immediately to seek legal redress. When no other defense seems sufficient for a verdict condemning a school board the question is raised whether the board has observed the legal procedure prescribed by the statute for a notice, a hearing, an opportunity for defense, and other safeguards.

The breadth of the protection afforded teachers under the tenure laws is based upon well-established facts, namely, that school boards have in many cases overstepped their authority, and that politics, nepotism, religious prejudice, or trifling causes have been at work to cause the dismissal of staff members. An individual teacher has much at stake in holding his or her position. The loss usually is monetary, but most frequently the harm results from the serious interruption of professional advancement. In this latter phase of loss, legal redress is impossible because proof of it can hardly be presented to a court. On the other hand, in normal times, a change in teachers will hardly cause appreciable harm to a school so that the board which makes an unwarranted dismissal cannot be attacked through public opinion even though there is somewhat reduced teaching efficiency, loss of morale, etc.

The teacher-tenure laws are distinctly not intended to keep an inefficient emotionally unstable or otherwise undesirable



WHY SCHOOL BOARD ELECTIONS ARE VITAL TO OUR CHILDREN

teacher or supervisory officer in office. They are not even intended to provide an excuse for that smugness which some teacher groups, especially in large cities, assume in slowing up school reorganization and improvements in teaching methods, and in resisting reforms through adequate supervision. They are not intended to protect political groups to carry on a sly type of un-American propaganda under the guise of progress in social science and freedom of teaching. The full purpose of these laws is achieved when they prevent a deserving teacher from interference through political or other unjustified action that an individual member or an entire board may trump up to get rid of him.

School boards will have no cause to complain against tenure acts if they fully observe the true purpose of the laws and act in accordance with the exact sequence of notice, hearing, and other technicalities prescribed by the respective state laws, contracts, and local board regulations. The reasons for a teacher's dismissal must be legally and morally justified beyond doubt and all prescribed procedures must be followed. All of which are matters of final recourse to be used only when all constructive measures to help a teacher succeed, initiated at the beginning of the year and carefully continued, have failed.

America is as strong as its local units are strong and self-contained in all that can well be left to the localities. — Howard Braucher.

School Administration in Action

Co-operative Citizenship Program Inaugurated in Pella, Iowa

C. C. Buerkens¹

One of the effective school services expanded in Pella, Iowa, during the school year 1944-45 has been the co-operative good citizenship program. This program, initiated by the Student Council of the Pella high school eight years ago, has been extended to include intermediate grades and to attract the help of the local community.

Originally, each class voted to select two representative citizens—a boy and a girl. In order to do this intelligently, a score card totaling 100 points was drawn up, listing seven citizenship qualities and attaching scores for each quality.

The score card, with modifications as each class sees fit, is being used to nominate candidates. Each class votes on two boys and two girls. The faculty which inspects the list removes any names with demerits, and adds a third candidate. Almost without exception, the faculty candidate has been found to be a nominee selected by student votes.

The list of three candidates is posted for six weeks. During this period the candidates are on probation while the students weigh values and compare their citizenship qualities.

¹Superintendent of Schools, Pella, Iowa.

The final election is held in May, with announcements withheld until commencement time, when the boy and girl winners in each class receive medals and later have their names engraved upon a special honor plaque in the study hall.

In addition, representative citizenship winners are eligible to receive recognition from local community organizations. For instance, three boys may be picked from the list to attend Hawkeye Boys State—a mythical fortieth state—for training in citizenship during the summer months. Selections are made by the Rotary and Kiwanis clubs and the local Legion Post. Girl winners are eligible for DAR awards and for Senior Queen to the Drake Relays in Des Moines.

In the intermediate grades, the boy and girl winners are invited to a dinner in their honor—one sponsored by the Rotary for the boys, and another by a women's organization for the girls.

The principal value of the citizenship program is believed to lie in the fact that a high premium is placed on good citizenship and good conduct. Throughout the entire school year no student is allowed to forget its qualities of importance.

We salute

MR. S. M. REINARDY
of Burlington, Wisconsin

On July 1, 1945, Mr. S. M. Reinardy severed his connections with the public schools of Burlington, Wis., and closed 33 years of continuous service as a member of the board of education.



Mr. S. M. Reinardy

Mr. Reinardy was first elected a member of the board in June, 1912, and has served continuously since that time. During the past 13 years he has been president of the board. Mr. Reinardy has always been active in the civic welfare of his community and his interest in education has given him the greatest pleasure. He has held that money spent for education is the highest type of investment, and he consequently gave splendid leadership in providing adequate funds for buildings and equipment, for a strong teaching personnel, and generous salaries to all school employees, and to wide curriculum offerings. Superintendent Witter states that the city of Burlington has felt itself fortunate in having the valuable services of this citizen.

equipment, and finally the general administrative costs.

Those engaged in cost accounting in commercial and industrial enterprises know full well the items that must be contemplated in fixing a selling price or a service rate. No business enterprise can survive unless it recovers all legitimate costs involved in its operations and spreads these equitably over the sales of services or products.

A school may not consider it necessary to adhere to strict commercial accounting. Hard and fast rules on tuition can hardly be set up, but an approach can be made to fairness to both the nonresident and the local taxpayer. A liberal attitude which takes into account the poverty of the great majority of nonschool districts is likely to pay the best dividends to all concerned. On one point the district which educates the children of its neighbors should be adamant: Prompt collection of tuition fees should be insisted upon under penalty of the dismissal of pupils. — W. G. B.

Home Library Rooms in Madison, Ill.

George T. Wilkins

In former years, the conception of an elementary school library in Madison, Ill., was a wire cage in one of the corridors with a display of books on the shelves. The books were viewed by the pupils and were pointed out as the so-called school library.

In Madison, during the past two years, this idea of a school library has been changed. One classroom has been taken and renovated into a library. First, the room was painted in warm, friendly colors, to make the room attractive and to supplement the lighting. Beautiful inlaid linoleum was placed on the floor to blend with the walls. Library shelves of proper height were placed in the center and around the walls of the room. Tables of several heights, suitable for pupils of every age, were placed in the rooms, with chairs of the proper height to match. A davenport, with a number of lounge chairs was placed in the room. A writing desk and chairs were also provided. The windows were draped to give a homelike atmosphere.

The library room has enough chairs to accommodate all the pupils of one grade at the same time. During each class period of the day a full 35 minutes' library instruction is given each class. Boys and girls are allowed to browse among the books and to select any book they desire to read during the period, or to take home for leisure reading after

school hours. The room is also provided with newspapers and magazines which the boys and girls may read in the room.

The library rooms are used by the pupils of the fourth, fifth, sixth, seventh, and eighth grades. The first-, second-, and third-grade pupils have a selection of books in their respective classrooms. A reading table and chairs are provided for each room.

A home-room library of this type has been placed in each of the four elementary schools.

PROBLEMS IN TUITION FEE ADMINISTRATION

From time to time school authorities are confronted with problems concerning nonresident school tuition. A school district that accepts pupils coming from an outside district is primarily concerned in fixing a tuition rate that is equitable.

Just here the meaning of "equitable" becomes controversial. One board figures the fee on the bare cost of the teacher service per pupil in attendance. The assumption is that overheads are not necessarily changed by the addition of a relatively small number of pupils.

The other approach contemplates all costs that enter into the operation of the school: the investment in plant, the maintenance cost, the debt service, the general supplies and

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By J. H. McNabb, President, Bell & Howell Company

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J. H. McNabb



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School Business Administration

A SMALL SCHOOL BUS

T. L. McCuen¹ and J. H. Pauly²

In mountainous country and in areas where a small number of children live in a remote area, a small bus may be needed to carry the normal load with a maximum efficiency and at a minimum of cost. In Kern County such a situation has led to the conversion of several standard panel trucks into 12-pupil buses. The excellent results achieved suggest that other school authorities may find the specifications developed for conversion of value.

Specifications for Panel-Conversion School Bus for the Transportation of Twelve High School Pupils

A. Type of Truck

1. **Size and Body Type:** The truck to be used in making the conversion outlined in these specifications shall be a one ton panel delivery type.

2. **Wheel base:** The wheel base shall be a minimum of 134 inches.

3. **Transmission:** The transmission shall be four speed.

4. **Tires:** Minimum size of 6:50 by 16, First Quality 100 level or equal. Single in front, dual in rear. One spare tire to be furnished.

5. **Tubes:** All rear tires to be equipped with heavy-duty tubes of first quality. All front tires shall be equipped with "Waber Double Seal" tubes, or equal.

B. Conversion — To include the following:

1. Cut side panels and install windows on each side, windows to be drop type with shatter-proof glass, on regulators, windows to have full 12-in. opening.

2. Provide inside and outside emergency door handles.

3. Completely line bus body, ceiling to be free of all projections.

4. Extend exhaust pipe to point beyond rear of body.

5. Install two flush type dome lights in the ceiling, clear of the aisle.

6. Install one roof ventilator.

7. Install four 39-in. school bus seats, upholstered in genuine leather, with minimum seat spacing of 25 in. in the clear.

8. Install asbestos over gas tank and completely cover floor with Mastipave.

9. Install tire carrier on side.

10. Install four amber clearance lights.

11. Install manual door control.

¹Assistant Superintendent of Schools in Charge of Business Affairs.

²Supervisor of Transportation, Kern County Union School District, Bakersfield, Calif.

12. Install approved manually controlled arm signal, front and rear.

13. Install two approved fog lights.

14. Install approved sun visor.

15. Install two approved reflectors.

16. Install two approved stop and taillights.

17. Install approved inside mirror.

18. Install one approved first aid kit.

19. Install one approved 2-quart fire extinguisher.

20. Install set of flares.

21. Install manual operation in windshield wipers.

22. Install porcelain enameled RR stop sign.

23. Install metal toolbox.

24. Complete unit to be painted chrome yellow medium, and lettered with regulation school bus lettering, including name of school.

ISSUING ORDERS

The art of issuing orders consists largely, according to Professor Herbert A. Simon, in knowing when not to issue them. In any public department or bureau, administrative orders require a certain amount of universality and permanence, particularly when they govern procedures growing out of contacts between different bureaus or divisions of an organization.

Writing in *Public Management* for July, 1945, Mr. Simon outlined seven principles which should govern the issuance of departmental orders:

"1. No order should be issued until it has been determined that the recipient of the order has the authority and the means at his disposal to carry it out without neglecting other duties which have been imposed on him.

"2. Every order must be written in the language best calculated to impress it on the minds (and habits) of its recipients. An order to day laborers should not be expressed in department-head language. Usually it is impossible to express an order too simply.

"3. Every order must be communicated in some fashion which will bring it forcibly to the attention of the persons who are expected to obey it. A bulletin board may be a satisfactory place for certain orders, if the persons affected read that board regularly. Orders should not be expected to simply trickle down through department heads to their subordinates. If they are intended for all employees, all should generally be supplied with copies.

"4. There is a limit (and a very low limit) to the rate at which employees can absorb new orders. Case workers in welfare departments have often been swamped with piles of eligibility rules and 'interpretations' of rules, which have remained unread on their desks. An unread order will not be obeyed.

"5. If an order is expected to have more than temporary effect, it must be incorporated in some kind of permanent manual available to the persons affected by it, and must be made the subject of periodic in-service training procedures.

"6. An order is a 'last resort.' Before issuing an order, the executive should explore all other possible means of bringing about the desired change—particularly in-service training.

"7. An order should be thought of as a product to be 'sold,' and full use should be made of modern advertising techniques. An attractive poster with a three word caption often proves more effective than a precisely worded 'directive.' The language of soap ads may lack legal precision, but it sells soap."

ROCKFORD'S LIBERAL SICK-LEAVE ALLOWANCES

Rockford, Ill. The board of education has approved a sick-leave plan for all school employees. The plan is based on a study of suggestions presented by employees' organizations and the prevailing practices throughout the country, and becomes effective during the school year 1945-46.

Under the plan, all employees under yearly contracts will be allowed ten days annually with full pay, for personal illness, critical illness or death in the immediate family.

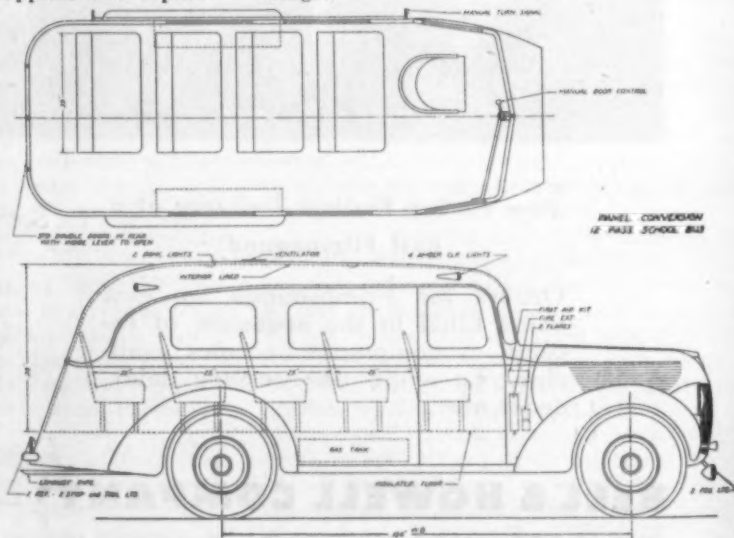
Two days, with pay, will be allowed for attendance at a funeral not of the immediate family. Two days, with pay, will be allowed for a wedding in the immediate family, including a relative or a close friend.

The total current yearly leave with pay for all purposes must not exceed ten days. Unused portions of the time allowed for sick leave and absence from duty will be cumulative. The accumulated credit may be used only for personal illness. Including the ten-day yearly allowance, an employee may acquire a maximum of 35 days' sick leave for personal illness.

► Oklahoma City, Okla. Faced with a teacher shortage, the school board has raised the minimum salaries to \$1,400 for teachers with bachelor degrees, and \$1,500 for those with master's degrees. The board has requested an increase of \$61,200 in the salary item of the annual school budget.



Panel type school bus for twelve passengers used in Kern County in sparsely settled mountain areas.





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RCA SCHOOL SOUND EQUIPMENT



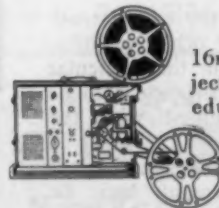
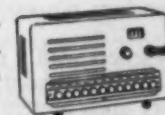
Control console—contains radio, phonograph and microphone, control and selector switches.

Speakers—wall-cabinet and flush-mounted types for inside use; horn-baffle type for outdoor use.



Microphones—dynamic and velocity types in either table or floor-stand mounting.

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School Administration News

SCHOOLS HELP RECREATION

A survey of community recreation in 1944, prepared by the National Recreation Association, indicates that the local school systems provide considerable help in these activities so necessary during the war period.

The National Recreation Association holds that community recreation service had a more significant place in American life in 1944 than in any previous year in our national history. Reports indicate that organized activities were carried on in 1315 communities by 1559 agencies. The leadership of paid personnel numbering 35,503 men and women was under the direction chiefly of municipal commissions. Only 191 school boards or other school authorities had direct control over recreational services. The total expenditures for 1245 communities were \$38,790,623, the highest in the history of public recreation records.

During the year a number of long-range plans were developed in communities where the problem of recreation and its importance are recognized. The general planning authorities in such cities as Detroit, Chicago, and Cleveland gave careful consideration to standards for recreation facilities and opportunities for the postwar period. While camping and recreation for industrial workers provided the heaviest challenges of the year, steady progress was reported in recreation centers and services for teen agers, for men and women in uniform, etc.

ASBURY PARK ADOPTS SALARY POLICY

The board of education at Asbury Park, N. J., has adopted a complete statement of policy to be applied to the employment and compensation of teachers. The basic plan recommended by Superintendent Harry S. Hill anticipates improvements in the quality of preparation of the staff, and increases in the salary levels. The policy has been adopted without contractual implications, so that the board will continue to have the privilege of changing the policy and the salary rates, and of passing judgment on the solution of individual problems.

The policy is intended to set standards of preparation and position, and is to be applied to elementary and secondary schools and to men and women teachers on a uniform basis. The four classes of teachers to be provided for will be:

Class A—Teachers with two years of preparation

Class B—With three years preparation

Class C—Teachers possessing a bachelor's degree

Class D—Teachers with a master's degree.

Teachers may be advanced from a lower to a higher degree upon presentation of earned credits approved by the superintendent before October 15 of each year.

For special types of work the superintendent may accept experience or other qualifications which fit the applicant for the particular work to be done. Outside experience is to be evaluated by the superintendent with the approval of the board.

Upon recommendation of the superintendent, a supermaximum increment may be allowed by a special vote of the board following thirty years of service or upon recom-

mendation of the superintendent testifying to the completion of 16 semester hours of additional training or superior ability in a given teaching situation.

The New Schedules

Teachers in all schools under Classifications A and B begin at a minimum of \$1,400 and rise with annual increments of \$100 to \$2,100 for Class A, and \$2,400 for Class B teachers.

Teachers in Classifications C and D begin at a minimum of \$1,500 and rise by increments of \$120 annually to \$2,800 and \$3,200 respectively.

Class A elementary principals with 6 to 12 teachers and an A.B. degree begin at \$2,000 and rise by increments of \$120 to \$2,800. Class B principals with 13 or more teachers

and a bachelor's degree begin at \$2,000 and rise with \$150 increments to \$3,200. Class C principals with an M.A. degree and 6 to 12 teachers begin at \$2,200 and rise by \$120 increments to \$3,200. Class D Principals with an M.A. degree and 13 or more teachers begin at \$2,200 and rise by \$150 increments to \$3,500.

The principals of high schools with an A.B. degree begin at \$3,000 and rise to \$4,500; with an M.A. degree they begin at \$3,200 and rise to \$5,000. Vice-principals of high schools with an A.B. degree begin at \$2,500 and rise to \$3,700; with an M.A. degree they begin at \$2,700 and rise to \$4,000.

All supervisors with an A.B. degree will be paid as much as Class A principals; with an M.A. degree, as much as Class C principals.

Southern States Plan for Vocational Education *Crawford Greene**

The sixth annual Southern States Work-Conference on School Administrative Problems held at Daytona Beach, Fla., May 28-June 8, used a somewhat different approach in its deliberations from the approaches used in previous years. Heretofore, the Work-Conference through subcommittees, has studied certain administrative problems and has made available to Southern educators the results of its deliberations.

The 1945 Work-Conference was centered around the development of a program of planning for vocational education as an integral part of the total program of education in the individual Southern States. The need for such planning became apparent in the deliberations of the Vocational Education Committee of the 1944 Work-Conference at the close of which the committee asked the Work-Conference to sponsor a comprehensive planning program.

Last fall the executive committee of the Work-Conference decided to follow the suggestion of the committee and planned the 1945 Work-Conference accordingly. A grant from the General Education Board assisted materially in the procedures instituted.

The 1945 Work-Conference provided opportunity for the Southern States to share with each other the results of their efforts in planning a total education which includes preparation for earning a living. The planning efforts were initiated last winter with the appointment of a Steering Committee by the executive committee of the Work-Conference. For convenience in holding meetings, the members of the steering

*Director of Administration, State Department of Education, Little Rock, Ark.

committee were all selected from one state—Georgia. The personnel was as follows:

Dr. L. D. Haskew, Emory University, co-chairman
Dr. John E. Wheeler, University of Georgia, co-chairman
Dean Kenneth Williams, University of Georgia, co-chairman
Dr. O. C. Aderhold, University of Georgia, co-chairman
Dr. M. D. Mobley, Georgia State Department of Education and president of the American Vocational Association.

This committee held numerous meetings to develop its philosophy, to develop a plan of action, and to prepare materials for guidance of activities in the respective states. Each southern state was asked to establish a special planning committee as an official agency of the State Department of Education and State Education Association. The personnel of each committee was selected to represent general and vocational education with representatives of each phase of both groups. Cochairmen from both general and vocational education were appointed. In most of the states funds were made available to underwrite the expenses of the committee.

At an early date in the work of each state committee a member of the steering committee was present to act as a consultant and to outline in general the type of planning to be undertaken. No attempt was made to direct the activities of the several committees into the same channels but rather to orient their procedures in a general fashion.

It was the desire of the steering committee to see that state planning for vocational education receive leadership and guidance from a committee of the most competent people in each state. It was desired that this committee conduct a process of group thinking which would result in bringing about a meeting of minds, as well as the development of other values which accrue from the democratic process at work. It was felt that the work of each committee would be strengthened by examining many points of view honestly and sincerely.

Having in mind a hypothetical state committee, the steering committee prepared a comprehensive Preliminary Guide for State Planning Committees. The guide attempted to chronicle in order what the state committee considered in its deliberations and to indicate some of the sources to which it went for its information. Its chief use was to point out possible lines of thought and investigation.

In the preparation of the Preliminary Guide the steering committee held rather firmly to a philosophy of education which is far reaching in its implication. This philosophy accepts the thesis that education in America is education for living both in and for an increasingly democratic social order.

(Concluded on page 60)



A Badge of Honor

The gilt veteran's button deserves recognition and respect for its wearer who has served his country during World War II.

JOSEPH E. BARBER, Principal
East Aurora, N. Y. High School

As Mr. Barber says, his Kardex Pupil History Records serve him daily in many phases of his work. Clearly and compactly they present essential data on all subjects of each student's school life, so that the principal can make helpful decisions and talk authoritatively with pupils,

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(Concluded from page 58)

With the work of the state planning committees well under way, the Work-Conference sessions at Daytona Beach were devoted to a clarification of the underlying philosophy, discussion of vital relationships, and other aspects of the problem. Presentation of progress reports of the various states was made. Group criticism and suggestions were made as an aid to the respective states.

The latter part of the Conference was devoted to work by respective committees on point of view and in the several major areas of vocational education in the co-ordination of materials for the Guide for Planning. Invaluable assistance was rendered the Conference by various consultants. The materials prepared by the various committees will be assembled and edited by the Steering Committee and transmitted to the respective state committees for their further guidance. No general publication will be issued.

The study and the planning in vocational education are to be continued under the direction of the cochairmen of the respective state committees working in connection with a new steering committee composed of Dr. John T. Wheeler, University of Georgia, chairman; Dr. Morrison McCall, Alabama State Department of Education; Dr. Ralph Woods, Kentucky State Department of Education; J. Warren Smith, North Carolina State Department of Education; Mrs. Annie Laurie McDonald, president North Carolina Education Association, Hickory, North Carolina; Mrs. Orrissa Simpson, director of home economics education, Greenville, South Carolina. Part of the 1946 Work-Conference will be devoted to reports of the various state committees and additional planning in the area, if needed.

Small committees of the 1945 Work-Conference devoted their attention to making plans for future study of school-building materials, school

finance, and elementary education. At the close of the Work-Conference the executive committee announced the appointment of a steering committee charged with initiating a study of elementary education as a major project of the Conference for the next year. This steering committee, which has met several times and outlined plans for the study is composed of:

Dr. John E. Brewton, co-chairman, acting president, George Peabody College for Teachers, Nashville, Tenn.
R. Lee Thomas, co-chairman, Tennessee State Department of Education
John W. Brooker, Kentucky Education Association
Lena Moore, South Carolina State Department of Education
H. A. Perry, North Carolina State Department of Education
R. H. Price, Alabama State Department of Education
W. E. Turner, Director, Tennessee State Department of Education
Nell Winn, University of Georgia
M. E. Yount, superintendent of Alamance County Schools, Graham, N. C.

The 1945 Work-Conference was held under the general direction of Dr. Edgar L. Morphet, of the Florida Department of Education, who is executive secretary of the Conference. At the conclusion of the Conference, Dr. L. D. Haskew, was granted a leave of absence from membership on the Executive Committee, and Dr. A. C. Aderhold was appointed to serve in his place. Dr. M. D. Mobley was appointed advisory member of the Committee on Vocational Education.

The Southern States Work-Conference is sponsored jointly by the state departments of education and the state education associations of the 14 southern states. It is directed by an Executive Committee composed of Edgar Morphet, executive secretary; W. P. King, Kentucky Education Association; Frank E. Bass, Tennessee Education Association; Crawford Greene, Arkansas Department of Education; A. R. Meadows, Alabama Department of Education; J. L. Blair Buck, Virginia Department of Education; and O. C. Aderhold, University of Georgia, with M. D. Mobley, Georgia Department of Education as advisory member.

IDAHO SCHOOL SURVEY

In February, 1945, at the regular session of the Idaho State Legislature, a bill was passed authorizing a state-wide study of the educational system of Idaho. Under the provisions of the law, a five-man commission was appointed to gather facts concerning the present status of the state educational system. The sum of \$50,000 was appropriated without strings attached, and the Commission was empowered to compel agencies engaged in education to provide any and all information asked.

The Commission after studying the job to do decided that the committee should not make the survey itself, but should employ a group of trained individuals to carry it on. In spite of pressure brought on the committee by various surveying agencies, the committee set up criteria to determine the qualities of the leader and members of his group who would make the survey.

Dr. J. E. Brewton, acting president of Peabody College, was finally chosen, with a group of specialists of his own selection. The actual work began September 1, 1945, and is to be completed September 1, 1946. The contract under which the survey is being made requires that Dr. Brewton, or his representative, meet with the legislative groups who are interested in education at the next regular session of the legislature in January and February, 1947, and to advise with these groups concerning their conclusions and recommendations. In other words, the study group is to help the legislative committees put the conclusions and recommendations into effect.

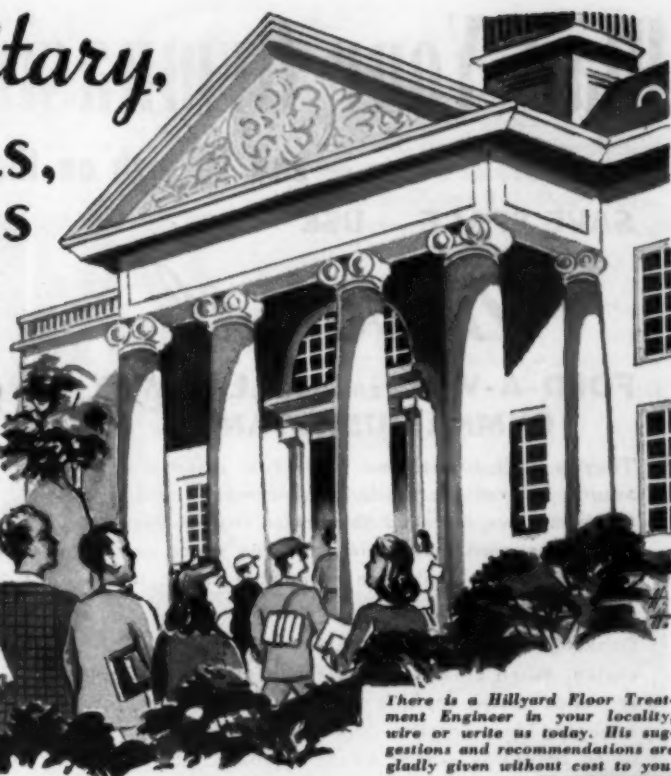
► KENNETH K. PRESTON has assumed his duties as superintendent of schools of St. 100, Berwyn, Ill.

► P. L. HAMLET, of Clinton, Ky., has accepted the superintendency at Marvell, Ark.

► The school board of Speedway, Ind., has reorganized for the next year with R. J. KRYTER as president, and WINFIELD D. WOOD as secretary.

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School Law

VETERAN'S RIGHT TO SCHOOL JOB UPHELD

A high school teacher who entered the armed forces and received an honorable discharge is entitled to return to the position he held prior to his entry into active service. Such is the ruling handed down by Robert W. Kenny, attorney general and head of the California state department of justice.

The opinion upheld the contention of C. E. Tindall, district attorney of Placer county. It was given in the case of William S. deWood, former music instructor in the Roseville Joint Union High School and the Roseville Elementary Schools.

Some doubt had been raised as to the teacher's eligibility to be reinstated to his former position. He had not returned to it within 90 days of his discharge as provided by the Selective Service Law governing re-employment rights of veterans.

However, and this is important in considering the ruling, the teacher had, instead, as a condition of discharge from the armed service entered an essential industry in a shipyard until requirements that he work in an essential war industry were removed. Within 90 days of his leaving the shipyards, he sought to return to his former position in the school district.

Attorney General Kenny, in upholding the teacher's rights to his old position, said:

"We believe that any other viewpoint is entirely too narrow and out of keeping with the entire plan to protect the positions of returning veterans. We interpret the law to mean that a school employee is entitled to return to the position held by him at the time of his entry into the military service, provided he seeks to return within 90 days after he is honorably discharged from any restrictions of the armed forces that would prevent him from accepting his old position."

Several hundred thousand men in the Army over 38 years of age were released from the Army in 1943 with the proviso that they take employment in essential industry without any consideration to their former employment before entering the armed forces.

SCHOOL LAW Teachers

A rule of a board of education that contracts of women teachers in its employ shall terminate upon marriage is not arbitrary or unreasonable, and its adoption is within the discretion of the board entrusted with the determination of matters of policy. Ohio general code, §§ 4750, 7690. — *Greco v. Roper*, 61 Northeastern reporter 2d 307, Ohio.

Pupils and Conduct of Schools

If pupils, who live within a reasonable walking distance from a schoolhouse or bus line, may safely travel roads in going to the schoolhouse or to the bus line, the duty of the county board of education as to transportation is satisfied. KRS 156.160, 158.110. — *Madison County Bd. of Ed. v. Skinner*, 187 Southwestern reporter 2d, 268.299 Ky. 707.

If pupils who live within reasonable walking distance from schoolhouse or bus line may safely travel roads in going to schoolhouse or to bus line, duty of county board of education as to transportation is satisfied. KRS 156, 160, 158, 110. — *Madison County Bd. of Ed. v. Skinner*, 187 S.W. 2d 268, 299 Ky. 707.

► The Iowa State Department of Public Instruction is without power, under the Iowa School Code, to prohibit the reopening of junior colleges which cannot give evidence of a freshman enrollment equal to 70 per cent of the 1940-41 freshman attendance. According to the attorney general, the law does not set up an enrollment requirement, and colleges which closed down because of the war emergency are free to resume, provided they meet the state requirements for the course of study, the qualifications

of their staffs, and their general programs under the law.

School Building News

A POSTWAR PLANNING PROGRAM

In the Bridgewater township schools at Raritan, N. J., a complete report has been made to the board of education on a proposed building program to include additions to buildings and new buildings. The report was based on a survey of population and physical facilities, conducted by teachers and board members.

The curriculum committee has also presented a report containing the aims, accomplishments, and recommendations for the future, relative to elementary and secondary schools.

SCHOOLS CO-OPERATE IN SURVEY

The preparation of a master plan as the basis of community development for the Eugene, Ore., area is under way through the instrumentality of the Central Lane (County) Planning Council, and the boards of education of Eugene and Springfield have appropriated \$2,800 and \$300 respectively to meet the costs of the school aspects of the study. The survey which is to cost \$14,300 the first year will cost \$3,200 per year thereafter to keep the data up to date and to readjust the program to changing conditions.

The council has urged that the need of a master plan becomes clear when a specific project is considered and when the relative immediacy of other needs are urged. "Without over-all data and some type of general plan it is difficult to determine just how a specific project should be planned to contribute most to the long-range developments of the community," the council has explained.

The content of the plan would include land utilization, recreation, streets and highways, transportation, public services, public buildings,

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The area proposed for inclusion in the survey are the cities of Eugene and Springfield and an area within approximately six miles of the boundary of Eugene in every direction.

ATLANTA BUILDING PROGRAM

The board of education of Atlanta, Ga., has approved a new school-building program for the postwar era, which will include a bond issue and an expenditure of \$8,100,000. The new buildings, as projected, will include auditoriums constructed as separate units, cafeterias, libraries, and gymnasiums to be accessible as separate sections. Recreation and toilet facilities will be available for afternoon and evening use. Another feature will be the inclusion of broadcasting studios and recording rooms in all of the key schools. All radio programs for the schools will be greatly expanded as soon as equipment is available.

BUILDING NEWS

► The Oshkosh, Wis., school board has advanced a step in its postwar school-building construction program. President R. T. Keefe has appointed a committee to oversee the final plans and specifications of the new buildings and additions to be erected after V-J day. The postwar planning committee has been discharged upon completion of its work.

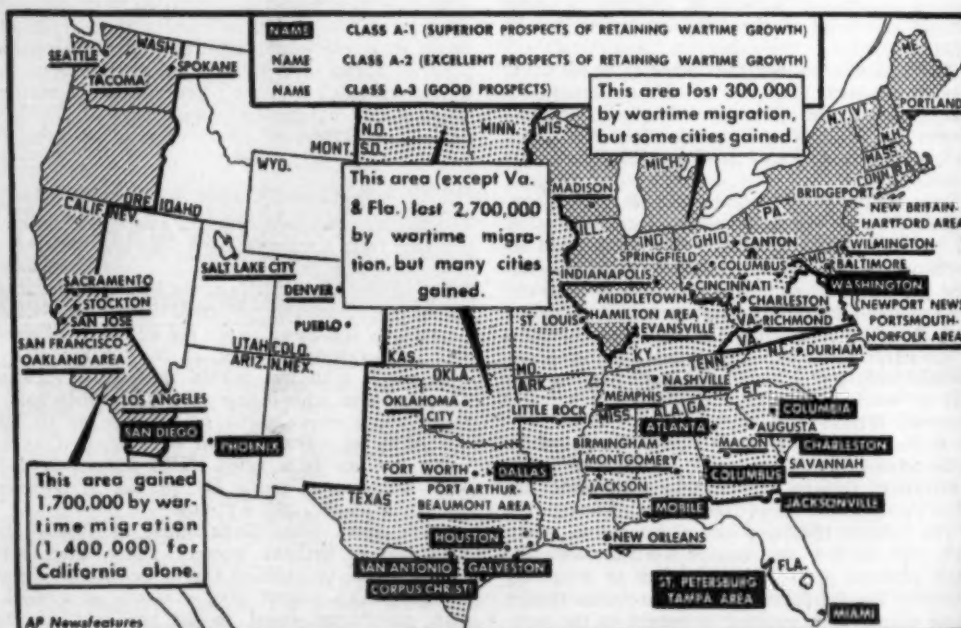
► Hillsboro, Ill. The interiors of three school buildings have been redecorated. It was voted to install new lighting systems in all of the schools as soon as material is available.

► At Tulsa, Okla., three advisory committees of citizens have been appointed by the board of education to investigate the postwar school-building needs of the school district and to recommend (a) needed expansion of the school

plant, (b) needed repair and modernization of existing buildings, and (c) a method of best financing the cost.

► Sandersville, Ga. The school district has leased to the city of Sandersville for fifty years,

at \$1 per year, eight acres of school land, upon which the park commission has completed a swimming pool, and later will construct an athletic field, with tennis courts, floodlighting system, and a gymnasium.



The wartime migration and anticipated changes have been studied in a nation-wide survey conducted by the Associated Press. The western and southern cities are expected to retain most of their growth.

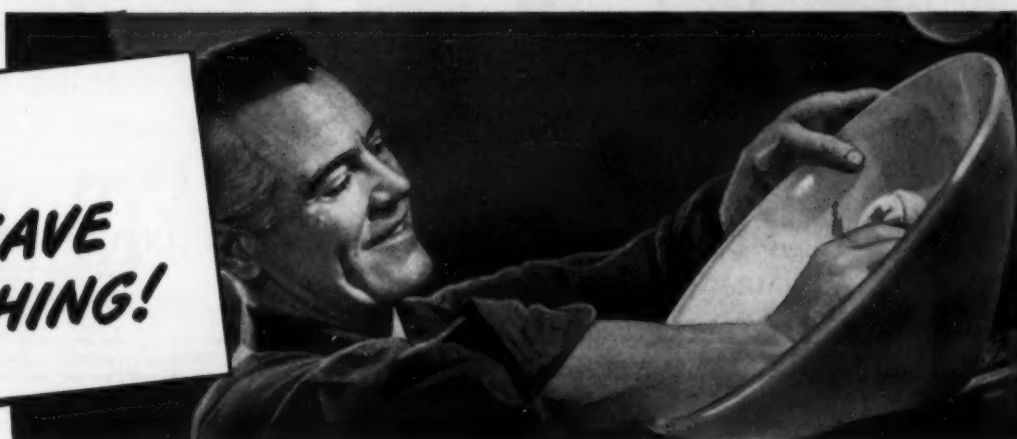
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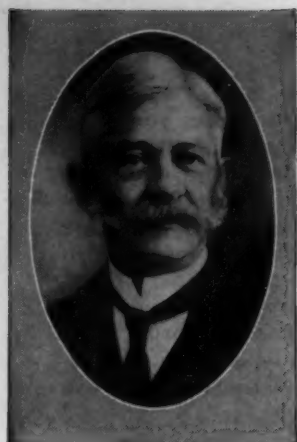


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Teachers' Salaries

► Savannah, Ga. New teachers to be employed for the September school term will start at the salary usually received at the beginning of the second year, under an order of the school board. Under a former plan, a teacher remained on state pay until the end of the first year, and if found satisfactory, she was raised by local supplement and each year received an increase.

► Venice, Ill. The school board has approved a new schedule, fixing the maximum pay for teachers with no degree at \$1,700. New teachers employed, with an A.M. degree, will start at \$1,600 a year and will advance at the rate of \$50 per year up to a maximum of \$2,000. Teachers already on the faculty, who hold an A.B. degree, will receive the minimum salary, plus increases of \$50 a year up to a maximum of \$2,000. They may continue to receive increases up to a final maximum of \$2,200.

The minimum for new teachers employed, with a master's degree is \$1,700, with increases of \$50 per year up to a maximum of \$2,250. Teachers already on the faculty and holding a master's degree will receive \$1,700, plus an additional \$50 per year up to the maximum of \$2,250, and they may continue to receive increases until the final maximum of \$2,500 is reached.

► Hillsboro, Ill. The school board has approved substantial increases in salaries for both teachers and janitors. The increases were made possible by the approval of an increase in the tax rate from \$1 to \$1.50.

► The board of education at Peru, Ill., has discontinued the payment of cost-of-living bonuses to teachers and has ordered that sums, which amount to \$350 annually, be added to the fixed salary schedule.

► Lincoln, Ill. The community high school district 404 has approved its 1946 budget calling for a net increase of \$1,000 over the past year.

It includes provisions for a \$10-a-month increase in salaries for members of the school faculty.

► Decatur, Ill. The school board has approved a new salary schedule giving increases in pay to all teachers.

► Edmond, Okla. The school board has adopted a new salary schedule. Teachers with a B.A. degree will begin at \$32 above the state schedule, and will continue until the state maximum has been reached, when an additional \$50 per year will be given for three years. Teachers with an M.A. degree will begin with \$22 above the state schedule, and will be given increases of \$50 per year for five years.

► Columbus, Tex. The public schools have been assured state aid, which means that all teachers will receive salary increases. A base pay of \$135 per month will be used, with salaries over this amount to be dependent upon training and experience of teachers.

► Russell, Ky. The school board has approved a salary schedule for the school year 1946, arranged for Class A, B, C, and D teachers. Class A teachers will be on a base salary of \$160 to \$190 per month; Class B teachers, \$150 to \$180 per month; Class C teachers, \$135 to \$145; and Class D teachers, \$125 to \$130 per month.

A GOAL

The Children's Bureau of the U. S. Department of Labor and the U. S. Office of Education have set a goal of 250,000 boys and girls to be returned to high school during the present fall. The appeal this year is being made in particular to those who are in summer jobs, those who have been laid off from full-time jobs, and those who are still in school but thinking of dropping out to get a job. Last year's drive helped to check the wartime decline in high school enrollment. This year high school enrollment must increase.

HOLD PLANNING CONFERENCE

In anticipation of the September opening of the schools of District 102, which includes La Grange,

La Grange Park, and Congress Park, Ill., a planning conference was held from September 4-7 in which the entire teaching staff participated. The opening session included a general discussion of the theme, "Appraising Our Progress" led by Supt. J. E. Pease and Dr. C. A. De Young, who acted as general conference director and slanted his remarks to answer the question "What is progress?" Among the general addresses held, the sessions of which discussed largely local problems, Mr. Ira W. Schmidt, president of the board of education spoke on the "Organization, Functions, and Responsibilities of the Board of Education."

INCREASE GIVEN OFFICE OF EDUCATION

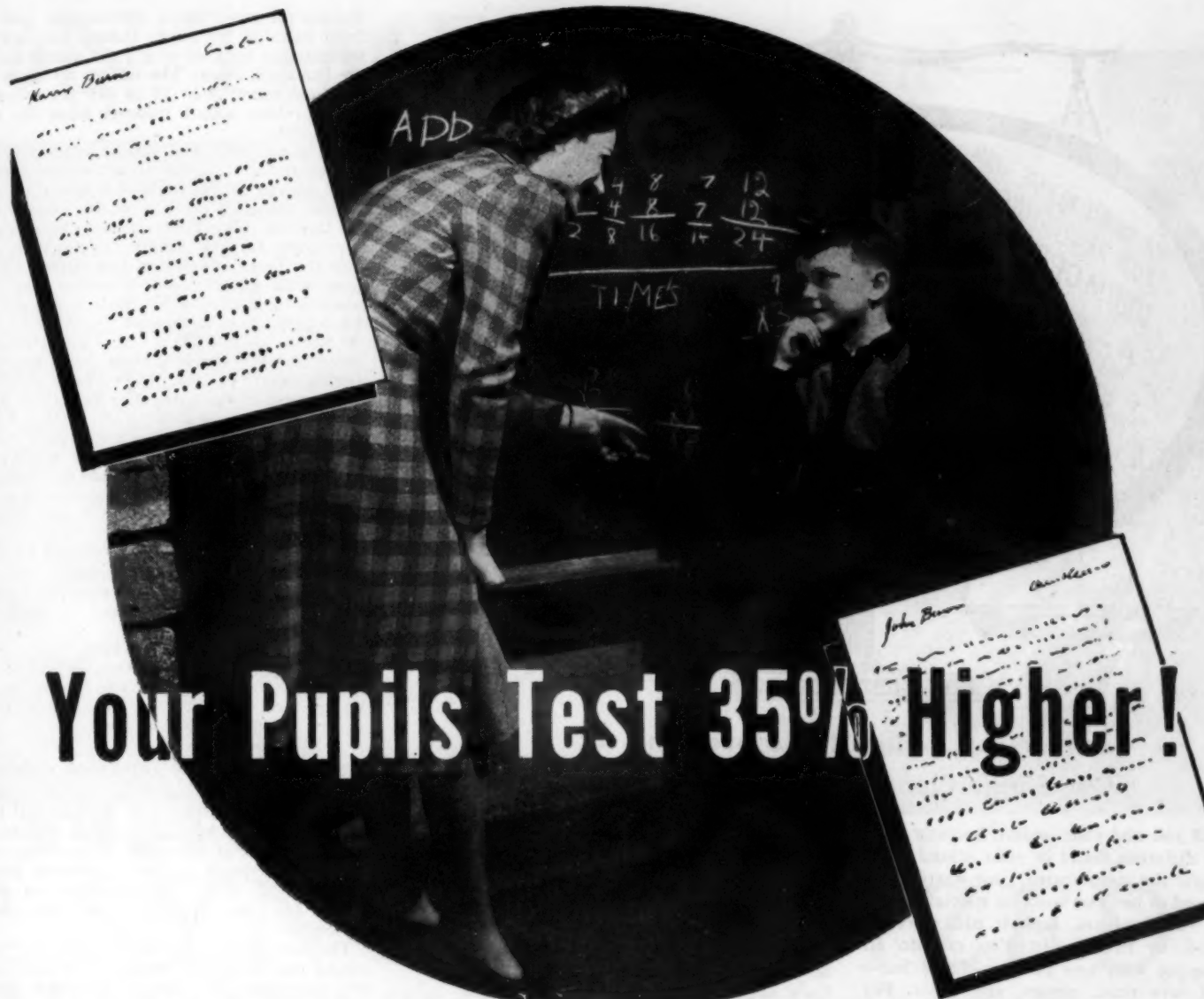
Congress has voted an increase of \$90,000 for salaries and \$10,000 for general expenses over and above the usual appropriations for the fiscal year of 1945-46. The money is to be used to begin a general program of expansion of the structure and services of the office. Specialists are to be employed in school business management and in elementary and secondary education. Commissioner Studebaker originally asked for an increase of \$616,000.

COLORADO RETIREMENT SYSTEM GAINS

The teachers division of the Colorado State Retirement System has gained 60 per cent during the year and has attained assets of \$200,000, according to Mr. Raymond J. Heath, secretary of the Public Employees' Retirement Association.

The maximum benefit is 40 per cent of the employee's average salary for the past five years of service but not to exceed \$100 per month. For members retiring with less than twenty years' service, a retirement benefit of 2 per cent of the past five years' average salary for each year of service is paid.

Retirement benefits are payable to employee members at age 65 after five years or more covered service. Also, benefits are payable in case of service-incurred or general disability.



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School Board News

► Ottumwa, Iowa. Tuition rates for nonresident pupils attending the city schools have been raised from \$65 to \$75 in the elementary grades, from \$85 to \$90 in the junior high schools, and from \$114 to \$120 in the senior high school.

► Muscatine, Iowa. All full-time custodians in the schools have been given increases of \$60 a year, with \$30 raises going to half-time workers.

► Gordon, Neb. The school board has adopted a policy which grants credit up to two units for military training for senior boys who are called into the armed services or who enlist. The student must be in good standing at the time of withdrawal from school, he must have earned 14 units of credit, he must leave for training within 5

days from withdrawal from school. The credit, which may not exceed two units will not be entered on the records until the student has completed his basic military training. The student must be in service at the time of graduation of his class.

► The board of education of Cincinnati, Ohio, has accepted a survey report recommending a complete postwar school-building program. The board has also ordered the purchase of a site in South Avendale of approximately 8.7 acres adjoining the Avendale School.

The latter building will be converted into a junior high school. It is planned to erect not only an elementary building but an auditorium to serve jointly both buildings, and to enlarge the heating plant for both structures.

► Marshalltown, Iowa. The school board has adopted new tuition rates for nonresident students who attend school in the city schools.

Tuition for grade school students has been raised from \$6 to \$8 per pupil. Tuition for high school students has been set at \$15 per month per pupil.

► Dubuque, Iowa. The tuition for grade pupils has been raised from \$7 to \$10 per month, and that for high school students from \$12 to \$17 per month.

► Royston, Ga. The school board has set an incidental fee of \$2 for all grammar school children, and \$3 for high school children, to be paid the day the child registers in the school.

► Dawson, Ga. The taxpayers have approved a proposal for the merging of the city schools with the Terrell County system. Under an agreement with the city school system, the county board is obligated to establish a white consolidated high school in Dawson.

► North Adams, Mass. The school board has added another period to the high school day, making seven periods. The change permits the enlargement of the curriculum to include Spanish and remedial reading.

► Westerly, R. I. The school board has employed a specialist to serve on the board's board of health. He will handle cases of children suffering from eye, ear, nose, and throat trouble. Three former members of the health board have been reappointed for the next year.

► Waterbury, Conn. The school board has raised the tuition fee for nonresident pupils for the next school year. The elementary school fee has been raised to \$158.30 and the high school fee to \$225.75.

► Columbus, Neb. The school board has approved a new plan for janitors, calling for work on a 12-month basis, and two weeks' vacation. All janitors will be given increases of \$12 per month.

NEW YORK BOARD TO PIONEER IN TELEVISION

The New York City board of education and the television department of the National Broadcasting Company have launched an experiment in the application of television to classroom education. Arrangements for the experiment, made by Mr. John E. Wade, superintendent of schools, called for the beginning of the plan in September.

The first program which was in the field of science was broadcast weekly over WNBT, and will determine the type of television program most suitable for educational purposes. Students and instructors will learn firsthand of the medium which is expected to be a major teaching aid.

NEW LIBRARY ARRANGEMENT

School Dist. 131, in Aurora, Ill., has completed a rather unique arrangement with the Aurora Public Library Board, in which the library board furnishes the librarian, the books, and the equipment for three branch libraries in school buildings in widely separated parts of the community. Children in the respective schools are permitted to use the library during school hours twice each month. The branch libraries greatly increase the circulation of the library and they are open three afternoons and evenings a week for the general public. The branches have circulated over 106,000 volumes during the past year.

ESTABLISH LOCAL SCHOOL PAPER

Under the leadership of Supt. Howard D. Crull, the Port Huron, Mich., schools are publishing a monthly newspaper. The purpose is to inform the community on the activities and problems of the schools and to arouse closer co-operation between teachers, school patrons, and the community in general.

WANTED—Superintendent of Schools for growing mid-western industrial city with population of approximately 80,000. Must have excellent training, sound educational philosophy and successful record in school administration and public relations. For further information, write Box 2068, Milwaukee, Wisconsin.

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How the Salina Schools are Helping Slow-Learning Children

The public schools of Salina, Kans., under the direction of Mr. W. W. Waring, superintendent of schools, have for the past two years given attention to slow-learning pupils. These pupils are not feeble minded, but they include pupils assigned to ungraded rooms for special instruction.

In carrying on the work the greatest difficulty in the ungraded rooms has been in the range of work which the teacher is required to supervise daily. It requires a great deal of patience, as well as personality. Teachers who felt a desire to perform a social service have been found to be most helpful to these groups.

During the school year 1943-44 it was decided to assign these students to an ungraded room where the teacher would be able to give instruction at the learning level of the students. During the year 1944-45 the group was divided. The lower group was composed of pupils of intermediate age, working at the primary level; the upper group consisted of pupils of adolescent age working at the intermediate learning level.

For the school year 1945-46 it is planned to include in the lower room the very slow learning pupils of the first and second grades. Through this plan it is hoped to help them more than was possible in the past.

As a result of the new arrangement it has been found that the students working at their

learning levels of success soon acquire habits of industry, of interest, and independence which are very gratifying. They become happy in their school-work and this brings satisfaction to their parents. During last school year a waiting list has been maintained to take care of requests for entrance to the classes. The list of prospectives is necessary since the enrollment of the rooms is limited from 15 to 20 students.

CORRY ADOPTS RULES FOR SUPERINTENDENT

The board of education of Corry, Pa., has adopted new rules and regulations to govern the conduct of the schools and the proceedings of the board.

Under the rules it is provided that the superintendent shall be the principal executive officer of the schools and shall have supervision over all matters affecting directly or indirectly the operation of the school system.

He shall be responsible for carrying into effect the policies adopted by the board.

He shall be delegated such powers as are necessary for executing administrative details in carrying out the policies of the board.

He shall cooperate with the principals, supervisors, and teachers in planning courses of study. In the event of a change in the course, or the introduction of a new course, the matter shall be submitted to the administration committee for study and to the board for approval.

The superintendent shall make purchases of necessary textbooks, supplementary materials, instructional apparatus, and supplies within the limits of the budget. An order must be submitted for the purchase of new items of equipment costing over \$25.

He shall exercise general supervision over all employees of the board. He shall recommend the employment of teachers and other employees as conditions require and shall furnish a statement concerning the qualifications of the person or persons.

He shall furnish to the finance and other committees full information regarding all matters within his knowledge necessary for their consideration.

He shall examine and certify as to the correctness of the pay rolls for employees.

He shall perform such other acts as are required by the board and the state school laws.

WILL SERVICEMEN AND WOMEN RETURN TO TEACHING?

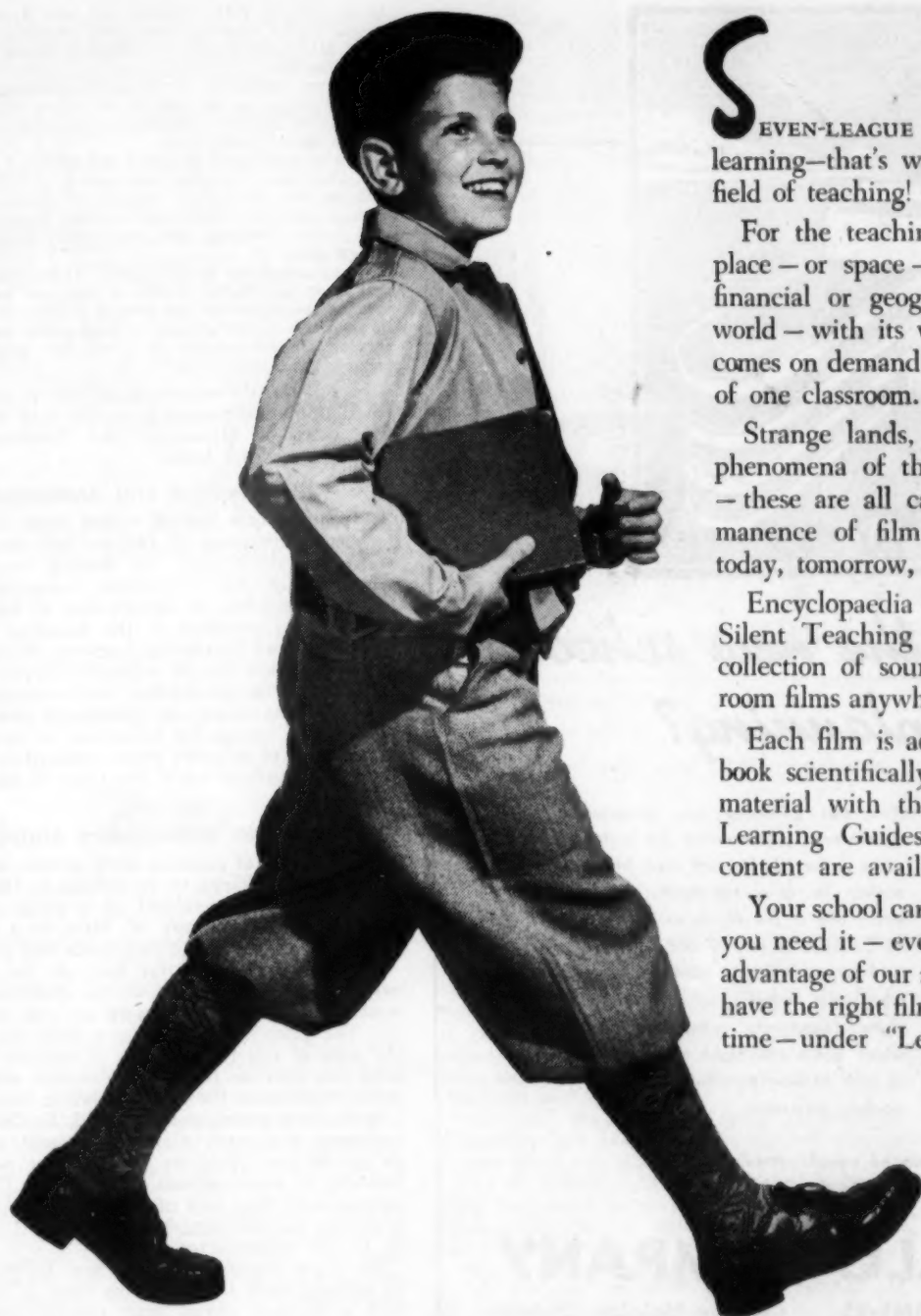
School boards in western Canada have been living in hopes that the immediate teacher shortage would be alleviated, but indications suggest that such will not be the case to any appreciable extent compared with the pressing need by the release of servicemen and women who were teachers before they joined the services.

It appears at this time that many demobilized teachers are taking advantage of opportunities offered for advanced university training under Canada's civil re-establishment aid for full courses. When they complete such courses such teachers will be seeking advanced posts in junior high and high schools rather than to come back to teach in elementary schools.

Then again, teachers who have held commissions during the war and who have enjoyed much higher rates of pay than the teaching profession has had to offer will seek more remunerative callings. Another group of ex-teachers are seeking business opportunities which also appear to offer more lucrative opportunities.

NEW YORK STATE CREATES TEN NEW CENTRAL SCHOOLS

Progress toward centralization of rural schools in New York State has proceeded further with the consolidation of 232 districts and the creation of ten new central schools. Asst. State Education Commissioner Edwin R. Van Kleeck points out that in a period of twenty years, a total of 4712 school districts have been replaced by 321 central schools.



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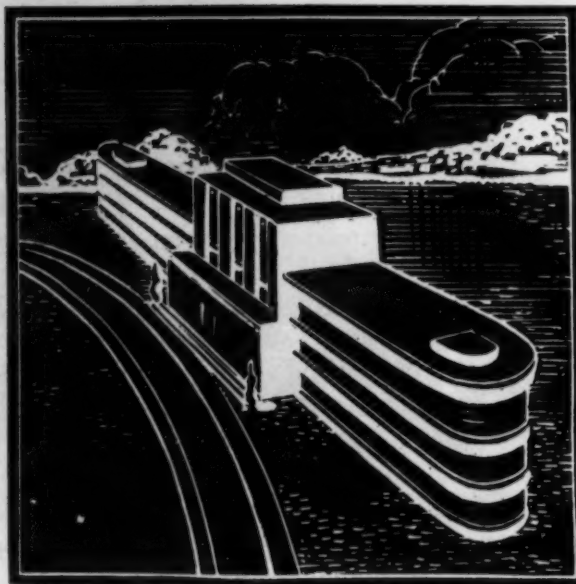
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School Finance and Taxation

PROPOSE PAY-AS-YOU-GO

The cities of Buffalo and Syracuse, N. Y., are taking steps for financing all public improvements, including schools, on a cash basis. The Syracuse Civic Committee, headed by Samuel B. Sisson, gives the following statistical background for pay-as-you-go:

In 1945, for every dollar paid in city taxes, 38 cents goes for debt service — interest on debts or retirement of maturing bonds. If the city were free from debt this year, the tax rate would be \$18.69 per \$1,000 valuation, instead of \$29.68. High point of the municipal debt was in 1938, when (exclusive of water bonds, which are self-liquidating) the city owed \$36,706,089. But in seven years the municipal debt has been reduced 50 per cent until January 1, 1945, it stood at \$18,688,001.

If the city continues its policy of retiring bonds as they mature and does not issue any new bonds, the city will be debt free in 1960. Bond maturities for 1946 and 1947 will require continuance of substantially the same tax rate as was required for 1945 leaving little or no cash available for capital outlays.

However, beginning 1948, the administration and the citizens will have the alternative of either reducing the tax rate in proportion to the reduction of the cost of paying old debts or maintaining the tax rate at or near the present level and using the cash surplus to finance public improvements.

The Syracuse Post Standard goes on to say:

If the tax rate were maintained at the 1945 level, cash available for a pay-go program in 1948 would be about \$1,350,000. And, as debt continued to shrink, funds available would increase until, by 1960, the city would have \$3,700,000 in cash to spend over and above what was earmarked in that year's budget for improvements.

Though in 1946 and 1947 the city will be paying heavily to get over the peak of its debt service, there still will be money available for necessary public work.

At the end of 1945, Syracuse will have \$1,000,000 in reserve funds; and the state has committed itself to spend at least \$1,000,000 on repair of arterial highways inside the city.

It is an opportunity for us to do something fine and big and sincere for the soldiers and sailors who are now fighting our battles — and their children. It is a way to give them a better city.

It is an opportunity to expand and build and strengthen our other aims — to bring more business and industry to Syracuse, to give it a competitive position that is stronger than other cities have, to make Syracuse in fact the greatest shopping and recreational center in the upstate area.

It strengthens our finances against future crises.

It is an opportunity, finally, to lower our tax rate by building the population and business activity of the city, by assuring a steadier demand for employment and thereby assuring the maintenance of values that keep such a program going successfully.

In Buffalo, the argument for pay-as-you-go is based upon the present favorable debt situation. The cities of Milwaukee and Kalamazoo are already on a cash basis.

FUEL SHORTAGES STILL DANGEROUS

When the new heating season opens the need for better utilization of fuel for heat and power confronts every user of heating equipment, whether it be for a residence, industrial plant, or public building, is the warning of Dr. C. E. A. Winslow, president of the American Society of Heating and Ventilating Engineers. With higher priced fuel and smaller available supply due to interruption in production, it is essential for every building owner and operator to plan during the summer season for inspection of equipment, replacement of defective parts, followed by proper operating methods when the plant is started in the fall.

PLANNING KINDERGARTEN ROOMS

The problem of planning kindergarten rooms for new school buildings to be erected in Oklahoma City, Okla., is the subject of a study recently completed by Dr. Frank W. Hart, as a part of his survey of school-building needs and plans.

Dr. Hart holds that for best use the kindergarten should be planned on the number of administrative assumptions based on local practice: (1) The space requirement for a single kindergarten class of one full room is 30 children. (2) A local rule provides for both a morning and afternoon session with the same teacher in charge.

With these assumptions in mind, Dr. Hart recommends that each kindergarten unit measure 24 by 44 feet (1056 sq. ft.). In the past, the planning of kindergartens in Oklahoma City has represented a total lack of standards. In 42 recent buildings, the area ranges from 690 sq. ft. to 4500 sq. ft. per kindergarten room.

Dr. Hart recommends that new kindergartens be planned with a wide sliding door (7 ft.) and with a concrete paved outer terrace, measuring about 15 by 30 ft., and a small turf. This outer space should be enclosed with hedges or walls in order to provide the seclusion necessary to prevent distraction on the part of the children and protection against winds and dust.

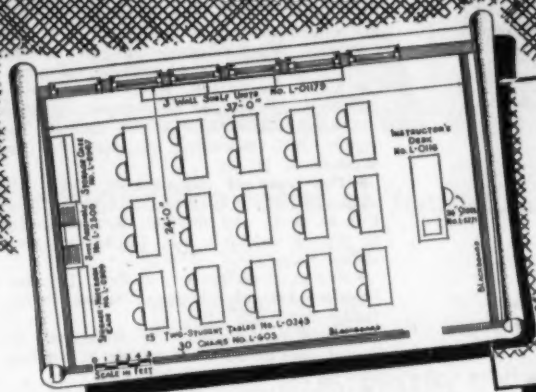
SEATTLE SCHOOL-BUILDING PROGRAM

A special prebuilding planning committee has made its report to the superintendent's conference after a six-month study of planning problems in the Seattle public schools.

A survey conducted early in December had revealed extensive building needs and a program approximating thirteen million dollars had been set up. A special four-mill levy was approved by the voters to provide funds for the work. The program includes plans for the enlargement of the administration building to house a school service center, workshops, conference rooms, radio broadcasting facilities, and instructional aids.

► Mr. JOHN W. HOLT, honorably discharged after three years' army service, has been elected secretary of the Burlington, Iowa, board of education. He succeeds Mrs. Nettie Fischer, resigned.

► The school board at Marion, Ind., has reorganized with C. C. RHETTS as president; WAYNE TUCKER as secretary; and GEORGE E. HAYES as treasurer.



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ADMINISTRATION OF DISCIPLINE PROBLEMS

In order that all members of the teaching staff of the Parma Public Schools, Parma, Ohio, may have a clear understanding relative to the administration of punishment in cases of misconduct of problem situations, Superintendent Carl C. Byers has called attention to the following statements:

1. The use of corporal punishment should be restricted to those cases in which all other means of punishment have proved ineffective, and when administered, will be administered fairly and impartially and in the presence of qualified witnesses, as required by law.

2. In the Parma schools, all cases of discipline which call for corporal punishment (generally interpreted to mean punishment administered by striking, slapping, or the laying of hands on pupils) are to be referred to the office of the principal and in all cases where it is necessary such punishment is to be administered with the consent of and in the presence of the building principal. Punishment is to be administered in the absence of all pupils, and a report is to be made by the principal to the office of the superintendent. (Generally speaking this regulation should not need to apply to primary children below the fourth grade. However, I would forcefully emphasize that the same common sense attitudes and sound judgment should be observed in handling all discipline problems.)

3. Punishment is never to be administered in a spirit of malice or anger. Bear in mind that it is our job to mold personalities, not subdue them. Don't lose your temper. It has often been said that to do so is an admission of mental inferiority to the person being corrected. (Slapping of the face or head is prohibited and at the same time excessive fondling of youngsters is not to be desired.)

4. In the treatment of juveniles and the prevention of discipline problems, I am taking this

opportunity to quote from a report compiled by the National Advisory Police Committee on Social Protection of the Federal Security Agency. If these procedures serve as a guide for law enforcement officers dealing with juvenile problems, then certainly they should be applicable to classroom problems:

"a) *Treat the youngster with consideration.* Remember that you and your conduct may influence his future attitude.

"b) *Be friendly.* Many youngsters today believe they are failures, though they haven't had time to be. Further the development of social, not antisocial attitudes.

"c) *Be firm.* Appeal to his sense of fairness.

"d) *Discover the child's problems, if you can.* If you know his background situations, you may be better able to sympathetically help him.

"e) *Try to gain his confidence and respect.* Your chances are far better if he believes in you. Antagonism merely makes the approach more difficult.

"f) *Don't 'brand' the youngster.* Such epithets as 'brat,' 'liar,' 'delinquent,' etc., are to be frowned upon and their use give rise to justified complaints. A positive approach to a problem is always preferable to a negative one."

REVISION OF MATHEMATICS PROGRAM IN BROCKTON, MASSACHUSETTS

Edwin A. Nelson, Superintendent
of Schools

What constitutes an adequate mathematics program in the junior high school? This broad question is being considered by a general mathematics committee appointed last spring in the public schools in Brockton, Mass. For some time results of objective tests in arithmetic and the subjective opinions of teachers, administrators, and supervisors had indicated that the program in operation needs revision in order to meet more adequately the needs

of individuals. During the past school year, therefore, a committee headed by Mr. Edward P. Hayes, Principal of the East District, was appointed to review and, if advisable, revise the mathematics program for grades 7, 8, and 9.

The foundation laid by an elementary school general committee that developed a course of study in arithmetic for the first six grades a few years ago proved a helpful basis upon which to build. To date a new committee has spent its time considering such topics as the place of mathematics in the total school program and in life itself; general aims of such a program; and specific aims for each of the three grades of the junior high school. These aims have been stated definitely in terms of definite skills to be acquired. They will be carefully weighed in the light of the broader aims. It is expected that a new course of study will be constructed during the next school year as the committee continues its work.

DR. EARL A. DIMMICK ELECTED AT PITTSBURGH

Dr. Earl A. Dimmick, who succeeds Henry H. Hill as superintendent of the city schools of Pittsburgh, was formerly associate superintendent, having served in that capacity since April 1, 1938.

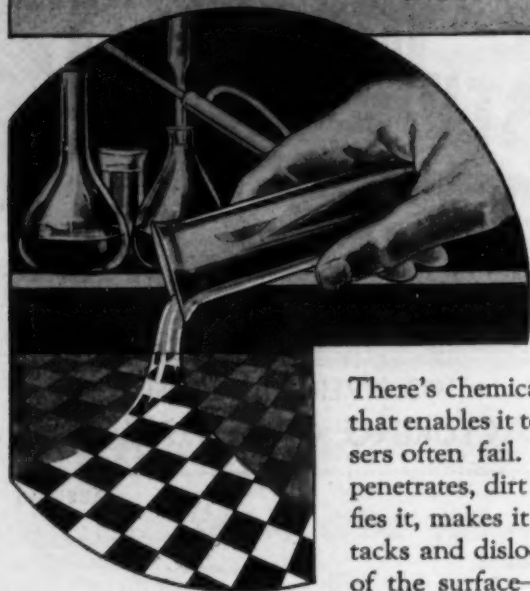
Dr. Dimmick was born in Bethlehem, Pa., completed his classical course at Albright College in 1916, and received his M.A. degree in 1925. In June, 1937, he earned the doctor of education degree.

Following his graduation from the University, he was a teacher in the Phillipsburg and Duquesne high schools, became a teacher of mathematics and director of activities in May, 1924, was appointed principal in three elementary schools and in 1937 was appointed director of guidance. He was a summer school instructor for two years in the University of Pittsburgh, and in April, 1938, was made an associate superintendent.

Dr. Dimmick has been a member of the board of directors of the Pennsylvania Association for the Blind, vice-president of the Western Pennsylvania Safety Council, and a member of the survey staff of the New York City Schools.

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Personal News

► Supt. H. J. BECKEMEYER, of Hillsboro, Ill., has entered upon his thirty-sixth year in schoolwork. Two of these years were spent as principal of the high school, and the remaining years as superintendent of the city schools.

► ROY CLARK, of Gilman, Ill., has resigned and accepted a position on the staff of the State Education Department.

► ROOSEVELT BASLER, superintendent of the Joliet Township High School, Joliet, Ill., is attending summer school in New York City, where he is working for his doctor's degree.

► C. C. LOWE, of Lebanon, Ill., has accepted the superintendency at Lawrenceville. He succeeds M. N. Todd.

► CECIL W. MARTIN, for some years superintendent at Peru, Ill., has entered upon his duties as chief executive of the Streator, Ill., school system.

► Dr. R. H. McCall, formerly of Jefferson, Wis., has succeeded John S. Clark as superintendent of schools at Waukegan, Ill. Mr. Clark had served 27 years.

► WILLIAM H. SHAW, of Sumter, S. C., has been elected superintendent of schools at Columbus, Ga.

► The board of education at Covington, Ky., has voted Supt. GLENN O. SWING a continuing contract which is in effect life tenure of office.

► Mr. HECTOR L. BELISLE, for 32 years superintendent of schools at Fall River, Mass., has been succeeded by FRANK C. CHACE, of Swansea, Mass.

► FOREST L. JONES, of Madison, S. Dak., has been elected superintendent of schools at Inwood.

► H. C. EDMIER, of Beatrice, Neb., has accepted the superintendency at David City.

► L. K. SHRAEDER has been elected superintendent of schools at Guernsey, Neb.

► E. G. LIGHTBODY, of Stanton, Neb., has accepted the superintendency at Nebraska City.

► RUSSELL M. WILKIE has been elected superintendent of schools at Ninare, Neb.

► CHARLES E. DALLAN, of Omaha, Neb., has been elected superintendent of schools at Arlington.

► ORLIE L. SCRANTON has been elected superintendent of schools at St. Paul, Neb.

► JAMES F. CALLAWAY, of Wahoo, Neb., has accepted the superintendency at Randolph.

► Supt. W. F. ZAHRADNICEK, of Anselmo, Neb., has been re-elected for another three-year term.

► AGNES SAMUELSON, formerly secretary of the Iowa Teachers' Association, has resigned to become assistant public relations director of the National Education Association. Miss Samuelson will make her headquarters in Washington, D. C.

► The board of education at Tulsa, Okla., has re-organized with FRANK A. STIVERS as president; MARY COX as clerk; and BEATRICE RAY as treasurer. Mrs. C. O. WILSON and GEORGE R. CATHEY are the new members of the board.

► RUSSELL STEPHENSON, of Peru, Ill., has been elected superintendent of schools at Spring Valley, to succeed James Nesti.

► JAMES A. CAMPBELL, of Walkerton, Ind., has been elected superintendent of schools at Sullivan, to succeed Dale C. Billman.

► G. A. HARTMAN has accepted the superintendency at Carey, Ohio.

► A. C. SENOUR, who was removed as superintendent of schools at East Chicago, Ind., has been returned to his position. The school board has rescinded a contract given to Clarence Barrett and has re-employed Mr. Senour for three years. Mr. Senour had been dismissed a few months ago because he protested the board's move in dismissing Miss Nellie I. Mills, a teacher charged with slurring the name of the late President Roosevelt.

► Supt. R. C. THOMASSON, of Middlesboro, Ky., has been re-elected for the next year, with an increase of \$500 in salary.

► Effective September 1, T. M. STINNETT, assistant commissioner and director of teacher education, State Department of Education, Little Rock, Ark., became executive secretary of the Arkansas Education Association succeeding Miss Willie A. Lawson, who has accepted a position with a Little Rock printing concern.

Succeeding Mr. Stinnett as assistant commissioner is CRAWFORD GREENE, present director of administration. H. R. PYLE, supervisor of budget service, in turn succeeds Mr. Greene. A new supervisor of teacher education and certification is to be appointed.

► J. DAN CLARY, of Freeport, Tex., has accepted the superintendency at Stuttgart, Ark., succeeding Harvey H. Haley, resigned.

► ROBERT L. GILBERT has been elected superintendent of schools at Cambridge City, Ind., to succeed Floyd A. Hines.

► Supt. DANIEL L. O'SULLIVAN, of Lemont, Ill., served as a member of the faculty of the DePaul University summer school.

► MARK F. SCULLY, of Festus, Mo., has accepted the superintendency at Kennett. RALPH B. TYNES has been elected to succeed Mr. Scully at Festus.

► P. E. TYRRELL, of Canistota, S. Dak., has taken a position at the Eastern Normal School at Madison.

► Supt. CHARLES D. LUTZ, of Gary, Ind., has been re-elected for his fifth consecutive year.

► CARL A. ZIMMERMAN has been elected superintendent of schools at Logansport, Ind.

► Supt. SPENCER D. POLLARD, of Crowley, La., has been re-elected and his salary increased to \$4,200.

► JOHN G. GILMARTIN has accepted the superintendency at Waterbury, Conn. He succeeds Thomas J. Condon.

► Dr. FRANKLIN P. HAWKES, of West Springfield, Mass., has been re-elected superintendent for another year.

► ROGER B. HOLTZ is the new superintendent of schools at Rice Lake, Wis., succeeding J. H. Murphy.

► JAMES L. PUGH, of Upland, Ind., has accepted the superintendency at Covington.

► O. W. DAVIDSON, of Chandler, Okla., has succeeded G. T. Stubbs as superintendent of schools at Durant, Okla.

► Lt. Col. JORDAN L. LARSON has resumed his duties as superintendent of schools at Dubuque, Iowa. In July, Col. Larson was given an honorable discharge from the army following active service in the South Pacific.

► GEORGE W. WILCOX, an educator and lifelong Nebraskan, died suddenly at his home in Lincoln. Mr. Wilcox had been a resident of Lincoln since 1935, when he moved from Lynch where he had been superintendent. He was a graduate of the University of Nebraska.

► E. C. WARRINER, for 21 years president of Central Michigan College, died at Petoskey on July 20. He had been retired since 1938.

► WILLIAM S. LYNCH, formerly professor and head of the Department of Humanities of the Cooper Union for the Advancement of Science and Art, in New York City, has been elected superintendent of schools at Fall River, Mass. Mr. Lynch, a graduate of the Durfee High School in Fall River, completed his college training at Holy Cross College with a B.A. degree in 1925. He attended the Harvard Business School of Arts and Sciences, and took other courses at the Harvard Summer School and at Boston University.

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AT GROSSE POINTE

(Concluded from page 49)

his plan of high school work, and to make his choice of an engineering occupation or a trade successful. It is the desire of the high school administration that each student be assisted to develop some salable skill before he is graduated, and to select the occupation in which he is likely to find the greatest happiness and to make the best success.

The students of the eleventh and twelfth grades, who have shown definite adaptation to some phase of the industrial-arts work, are encouraged to specialize in that field as much as possible. The schedules are developed so that the requirements for graduation will be fully met.

It is around the group of boys who have expressed the definite intention to enter an engineering college or a trade that the vocational trade classes are being developed. Up to the present time the classes have been made up of students interested to become machinists, machine tool operators, tool-makers, diemakers, and welders. The classes have naturally included the pre-engineering students, whose work in mathematics and science require shopwork for practical applications.

The Grosse Pointe high school definitely hopes to expand the shopwork to the thirteenth and fourteenth years, so that students may specialize in one or another of the mechanical vocations which are available in the Detroit metropolitan area. At present the postgraduate work is specially being planned for drafting, machinists, welders, toolmakers, and die sinkers.

Looking Into the Future

Much of the shopwork in Grosse Pointe in recent years has been influenced by the specific war needs of the metropolitan community. In the courses offered it has been recognized, however, that the training of the students must so far as possible take into account the postwar period. The schools have thoroughly appreciated the unique opportunity for making the industrial education offered in the high school a contribution to the postwar opportunities and changes.

Recognition has been given, in the first place, to the fact that a relatively high number of students complete their high-school work, and that a similarly high percentage go on to college.

In the second place, the metropolitan industrial Detroit area offers unique opportunities to young men who may have ability, leading to advanced positions in industrial management and to well-paid jobs as foremen, industrial designers, etc. The pioneer work of the Henry Ford Trade School, the Chrysler Institute, and other technical education arms of local industry have demonstrated the needs of industry for high grade young men with a good academic and shop education. The Detroit area has special opportunities for utilizing the products of industrial education, especially when the students associate skill with scholarship.

The industrial-arts staff of the Grosse Pointe schools and the local administration of the school system are joining with state leaders in industrial education to give a great deal of study and experimentation to the possibility of a program at the secondary

level, which will do as well or better for the students as is done by the Chrysler and Ford schools. We are anxious that eventually most of the graduates of the high school will be prepared to do three things:

1. To enter industry and to move toward taking a *creative* part in the development of Detroit and Michigan industry rather than simply to hold a routine, semiskilled or operative position. In seeking this objective, however, we shall not minimize the importance of the student's ability and willingness to do the simple operative task as a step in his growth.

2. To enter college with a clear and *experienced* understanding of the high relationship between the industrial process and the scientific method, the industrial environment and modern culture, the industrial art and creative expressions.

3. To take a more highly specialized course in posthigh school vocational training which will give the student not only a job but a sense of importance of *continued* growth and study after he enters the job, and a recognition of the fact that a job is purely another *course* in his program of ongoing and continuous education.

The techniques and methods for realizing these objectives are not yet crystallized to the point where they can be set forth, but these are emerging as we clarify our objectives.

WILL STUDY ARMY TECHNIQUES

The American Council on Education has received a grant of \$150,000 from the Carnegie Corporation and the General Education Board for the purpose of studying the instructional methods used by the Army and Navy during the war.

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ARMY EDUCATIONAL PRACTICES

(Concluded from page 44)

present serving with the army of occupation in European countries are having the unique advantage of attending European universities and colleges. Several institutions abroad are already offering organized courses. It is expected that some credit will be extended by American schools.

The armed forces have developed counseling to a high degree of efficiency and application. This service is available from both the port of embarkation and the place of demobilization. Civilian agencies, in turn, are working closely with armed forces counselors. Many adjustments have been made for insuring the future happiness of army trainees under terrific stress and strain. The army, today, trains nine out of ten men to become specialists. Note the implication. The trend for the future seems to be emphasis on specialization. It is hoped that educators will do everything in their power to set up programs that will include educational as well as vocational guidance. Let us not make the mistake of Germany. A broad general education will be just as necessary in the postwar era as the specialized programs for developing occupational skills.

Educational programs under the jurisdiction of the armed forces have been successful. Public school educators may wish to raise their "sights" and evaluate techniques, methods, and training aids in terms of present and future utilization. It might well be that the educator learn from the sailor, soldier, and marine.

POSTWAR BUILDING NEEDS

(Concluded from page 47)

civic and cultural interests of the community. There is no good reason why the increased uses of the schools during the war should not continue during peacetime. A continuous and comprehensive study of the community is therefore a basis on which to project any plans for new school facilities.

12. Twelfth and finally, the superintendent, although he has a major responsibility in planning the educational program and buildings to house it, should not be the whole show, nor should he let a building program become a personal issue. It is no time for him to develop a Jehovah complex, and the outcome should not appear as a personal vindication for him. He should be a sort of executive secretary to the building committee and keep the board informed, present helpful facts, and tactfully prevent the board from making serious mistakes; nor should he let his board be guilty of too little planning and too late.

In conclusion, a safe slogan is to plan tomorrow's school today. Someone has said "today is the tomorrow we worried about yesterday." In paraphrase, *if we don't hurry, it will be yesterday before we can plan tomorrow's schools today.*

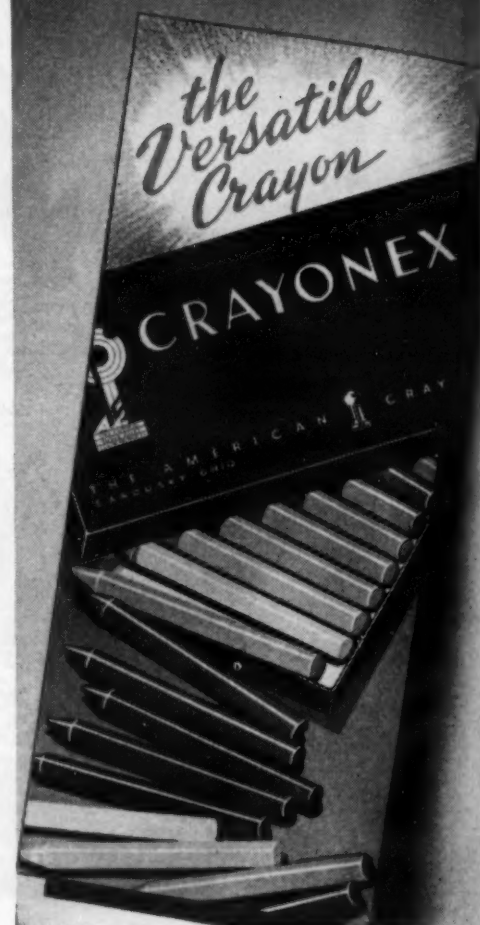
► The school board at Yankton, S. Dak., has elected CLARENCE WEIGER as president, and DR. H. D. PERRY as vice-president.

► DR. G. J. MOTRELL has been elected president of the board of education at Green Bay, Wis.

► C. E. GREEN, of Frankfort, Ky., has accepted the superintendency at Owenton.

► ROBERT E. DAVIS, of Middleboro, Ky., has been elected superintendent of schools at Carlisle.

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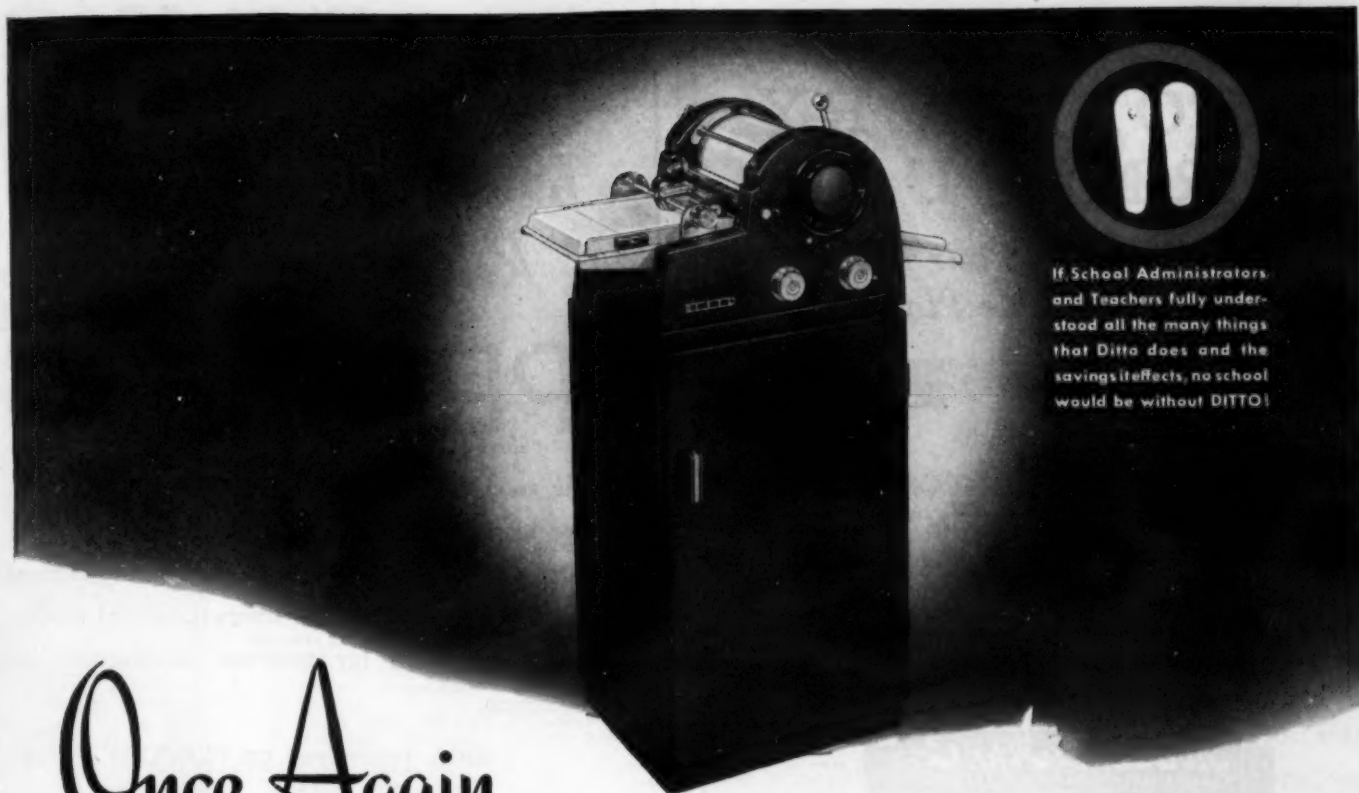
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INDIANA

BETWEEN SCHOOL AND SHOP

(Concluded from page 26)

never forget a night when my tools would not cut and I did not know how to sharpen them, and the gang elected to let me fight it out. It became painfully apparent to the school teacher that even where there is a will to learn and a willingness to work hard, some things that look mighty easy to the other fellow just are not so easy.

I have learned as many have learned before the value of properly cut and sharpened tools. For example, tool bits pitched at the wrong angle or without proper clearance do strange things to metal. In the old woodshop at school a general failure to have properly sharpened saws and chisels was a fair criticism offered in many communities by regular tradesmen. In metalwork, too, a good deal of attention can be given to the art of shaping and sharpening small tools. That sort of thing is on the schedule in our own shop for this new school year.

It may be our local good fortune alone, but perhaps in varying degrees it will be found quite generally, that industrial concerns are as much interested in the work of the school as is the school in the education of its youth for useful living. I do know that we are outstandingly fortunate in that respect at Amherst. At the head of the largest manufacturing plant in our small city is an industrialist who served for twenty years on the local board of education and associated with him are two sons both of whom were graduated from the local schools before going on for their technical training. This industry is giving exceedingly substantial help in the development of shop, science, and related courses in the local school. It is interesting to note that these men consider English a very important course in the training for industry. With this sort of assistance we are well on the way toward an excellent machine shop and an unusually well-equipped laboratory. In selecting

the machinery, equipment, and types of work to be done, we are trying to keep continually in mind the needs of our young people in our own community.

From time to time in this paper I have used the word "boys." Of course, there are girls in those welding and metal courses, too. We'll learn after a while to use the more inclusive term "students." And while science, mathematics, and shop may have almost a corner on this paper, we are proud to say that our Latin classes are probably larger than those in most any community of this size and that such courses as English, music, and drama have their most enthusiastic supporters. It is still the general education that we hope to continue to offer to our boys and girls, but we have come to realize that general education includes a liberal course in shop practices.

I may have selected a strenuous approach to the problem of learning the needs of the community. However, it has been sort of fun, with real joy and satisfaction. And to return to my original text, the feeling of co-operation that exists between the school and the shop is most agreeable. Both of us seem to be benefiting by the experience.

POOL FOR SCHOOL PLANNING

(Concluded from page 36)

at hand is commendable. Lack of institutional rivalry and jealousy in attempting to serve the best interests of the schools has won for the Service the respect and confidence of school authorities.

It takes "some doing" to make such a co-operative venture go — it does not just work by itself. Most of the co-operating institutions are competitors in certain phases of higher education; they have their quota of "difficult" persons, just as do

colleges and universities elsewhere. Nevertheless a good beginning has been made, which may be an opening for more efforts in the direction of co-operation, and elimination of duplication and competition.

The colleges and universities will profit from this state-wide group effort. The interrelationships of schools and higher institutions fostered by the Service will prove to be of mutual benefit in many ways, and the public schools will also receive much benefit to their own undertakings.

PERSONAL NEWS OF SCHOOL OFFICIALS

► At Wauwatosa, Wis., Dr. W. A. McGill has been elected president of the school board; Mrs. L. S. Brown, vice-president; and Charles H. Hawks, secretary.

► Mr. HERBERT C. SCHENK, president of the school board at Madison, Wis., since 1939, has been re-elected for the 1945-46 legal year. Mr. GLENN W. STEPHENS has been elected vice-president; Mr. EARL D. BROWN, secretary.

► At Oshkosh, Wis., the board of education has elected RUDYARD T. KEEFE as president; JAMES HART as vice-president; and CARLETON STUEBS as secretary.

► FRANK A. STIVERS has been elected president of the Tulsa, Okla., board of education; J. A. WHITLOW, vice-president; Dr. CHARLES C. MASON has been re-elected superintendent.

► The board of education at Holland, Mich., has re-organized with Mrs. MARTHA D. KOLLEN as president; C. J. DEKOSTER as vice-president; and JOHN OLERT as secretary.

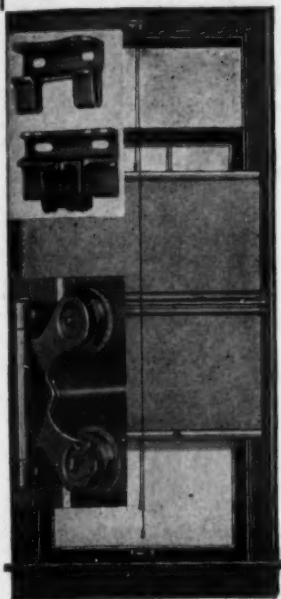
► C. A. SWENSON has been appointed director of adult education for the public schools of Hutchinson, Kans.

► Mr. WILLIAM ECK, prominent industrialist and member of the Manitowoc, Wis., school board since 1937, has been named president to succeed Mr. Francis Rugowski. Mr. ROBERT LINDWALL has been elected vice-president, and Miss VERA DUENO, secretary.

► Dr. L. R. FINNEGAN has been re-elected president of the Beloit, Wis., school board, and C. E. MACKLEM, vice-president.

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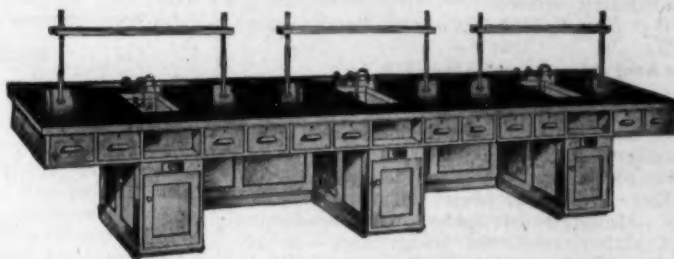
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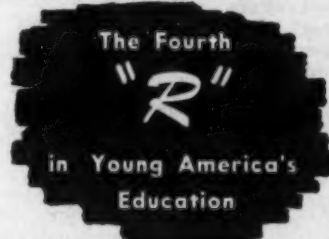
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ARCHITECTS VISUAL EQUIPMENT HANDBOOK

An outstanding contribution to the planning of postwar schools is the Bell & Howell Architects' Handbook. Designed to help planners and their architects adapt classrooms for visual educational needs the booklet is most timely. Classrooms, conference rooms, and auditorium specifications are adequately covered.

Bell & Howell, 7100 McCormick Road, Chicago 45, Ill.

For brief reference use ASBJ-910.

PRODUCTION ON POSTWAR REFRIGERATORS

Two new models of Westinghouse electric refrigerators—first to be produced since the beginning of the war—are now in production at the East Springfield, Mass., plant of Westinghouse. Manufactured under War Production Board authorization, the refrigerators—in 20- and 30-cubic foot sizes—will be available to institutions having a priority of AA-5 or better. This includes hospitals, schools, colleges, cafeterias, restaurants, laboratories, and similar institutions. Although restrictions on sale have recently been lifted by WPB, initial production must be directed to filling priority orders now on hand. The line ultimately will be extended to include both larger and smaller sizes as soon as additional manufacturing facilities and materials are made available.

Westinghouse Electric Manufacturing Co., P. O. Box 1017, Pittsburgh 30, Pa.

For brief reference use ASBJ-911.

SEAT STUDENTS COMFORTABLY

Kewaunee Automatic Adjustable Chairs and Stools are especially designed for use in classrooms where art, architecture, chemistry, or any other related subjects are taught. These chairs and stools are instantly adjustable to meet every requirement for proper seating of worker or student. Automatic adjustments are made by merely lifting or lowering seat to the desired height. Kewaunee chairs and stools save instructors time, increase student efficiency, lessen fatigue—seat every student properly and comfortably.

Kewaunee Mfg. Co., Dept. ASBJ, Adrian, Mich.

For brief reference use ASBJ-912.

G. E. ANNOUNCES SLIMLINE FLUORESCENTS

General Electric Lamp Department announces it is developing, as fast as possible, Slimline fluorescent lamps suitable for use on series circuits. The lamp and its socket are being designed together as in the case of the multiple lamp development. Included in the advantages created are maximum utility, safety, and appearance as well as even nominal lengths (one lamp plus two series sockets) of, for example, 96 and 72 inches. Type or types of G-E Slimline lamps to be offered for series circuit operation are being carefully studied. It is expected that both hot and cold cathode types will be made available.

General Electric Company, Lamp Department, Nela Park, Cleveland, Ohio.

For brief reference use ASBJ-913.

PROJECTIONIST TRAINING

Procedures for the successful training of 16 millimeter projectionists are outlined and analyzed in a pamphlet published by the Victor Animatograph Corporation available on request. The course of instruction covers: (1) explanation of the principles of motion picture projection; (2) setting up equipment; (3) explanation of operating controls; (4) handling and lacing film; (5) teaching image sizes; (6) location and care of screens; (7) teaching correct speaker placement; (8) operation and projection; (9) trouble shooting and first echelon maintenance; (10)

testing. Whether the prospective operators have the qualifications can be determined by a simple questionnaire, which is included in the Victor pamphlet along with the written tests given at the end of the instruction period as well as an outline of the course of instruction.

Victor Animatograph Corporation, Davenport, Iowa.

For brief reference use ASBJ-914.

REPORT OF CHINA

American collaboration with China in its fight for freedom and a historical review of China's struggle for democracy since the days of Sun Yat-sen comprises the story told in the new United China Relief film for 1945-46, and entitled "Report on China." The film runs approximately 34 minutes and prints will be ready for national release in July, 1945. The well-known actor, Raymond Massey, is narrator of the film. "Report on China" brings history up to date with its coverage of the completion and operation of the Stilwell Road and the fight for the air bases of our 14th Air Force and the Chinese-American Composite Wing, which have been the principal battle grounds in China during the past year. Footage for these sequences was obtained from Army Air Forces, Combat Film Section.

United China Relief, 1790 Broadway, New York 19, N. Y.

For brief reference use ASBJ-915.

FILMOSOUND AUSTRALIAN RELEASES

Australian classroom teaching films make their debut with a series of "six reelers" dealing chiefly with marine and bird life. "People of the Ponds"—a study of the microscopic life inhabiting a pool in an extinct volcano. "Birds of the Barrier"—Terns nest collectively for defense against marauding Gulls. "Coral and its Creatures"—excellent closeups of the island-building polyps, with heads like living flowers and bodies like worms. "Secrets of the Sea"—collecting minute specimens. Life cycle of the Sea Slug. A wide variety of rare forms of marine life. "Catching Crocodiles"—fresh water and salt water types. "Strange Sea Shells"—some well known, others strange and new. Other Filmosound Library offerings include "Nation Builders," winner of an international amateur cinema contest; three Carverth Wells lecture films; and a five-minute musical, "Teddy Bears at Play," which is one of the most popular juvenile subjects ever made anywhere.

Bell & Howell Company, 7100 McCormick Rd., Chicago 45, Ill.

For brief reference use ASBJ-916.

FILMOSOUND LIBRARY

Michael Strogoff, No. 974, 11 reels. Jules Verne's immortal classic tale of the Czar's courier who saved the gypsy spy, and was in turn saved from the Cossack rebel chief. Tremendous spectacle, fine acting, stirring story. Theatrically released by RKO as "The Soldier and the Lady."

Hot Check Honey (Universal), No. 2569, 7 reels. Junior member of "Father and Son" vaudeville team is pushed out for his own good, eventually gets to Hollywood. Available from September 10, 1945 for approved nontheatrical audience.

Bell & Howell Company, 7100 McCormick Rd., Chicago 45, Ill.

For brief reference use ASBJ-917.

"HOME AROUND WORLD" PROGRAM

To augment the NBC's University of the Air series, "Home Around the World," Volume II of a handbook for listeners has just been published. Stories by outstanding authors, historians, lecturers, and government officials tell of customs and living in 13 foreign countries. Miss Wagner's program series is designed as systematic instruction of college caliber. While each episode is an

entity, it is still part of a connected theme showing the universality of home all over the world.

MC CLELLAND JOINS VICTOR

Mr. A. J. McClelland, widely known for his work with schools in developing large visual educational programs, has been appointed director of educational sales for the Victor Animatograph Corporation, Davenport, Iowa, producers of 16mm. motion-picture projectors, cameras, and allied equipment. Mr. McClelland was engaged in schoolwork, serving as a teacher, high school principal and superintendent. Mr. McClelland is especially known for his planning and consultant services. His headquarters are the Victor offices in Chicago.

STANDARDS FOR CHALK

The National Bureau of Standards, Washington 25, D. C., has issued a revision of its Simplified Practice Recommendation for the manufacture and packaging of crayons, chalk, modeling clay, water colors, and tempera colors for school use. Copies may be had (R192-45, 5 cts.) from the Superintendent of Documents, Government Printing Office, Washington.

SCHOOLS RETAIN WAR TRAINING TOOLS

Approximately \$75,000,000 worth of tools and equipment used for education and training of defense workers may be retained by schools now holding the property. Ownership under a rider to the 1946 Appropriations Act for the U. S. Office of Education provides that the ownership of the tools and equipment shall remain in the agency which originally owned it, but that no school or school system shall be required to surrender possession or use of the same. Most of the equipment is in local schools but is held by the several state boards for vocational education.

After the Meeting

A Broken Record

In a New England secondary school the seniority of a teacher was overlooked in a promotion. The disgruntled department head demanded to know why his twenty years of experience had been overlooked.

"My friend," said the headmaster "in reality you haven't had twenty years' experience—you have had one year's experience twenty times."—*Reader's Digest*.

A Traditionalist

At Oxford University they tell the story of the rugged professor who refused to recognize the existence of the girl students who, because of the war, began to outnumber the males. He'd begin his lecture to the mixed classroom: "Gentlemen."

When there were forty girls and only ten men in his class, the professor ignored the females and stubbornly would address the classroom: "Gentlemen."

Finally the day came when he found 49 girls and only 1 male student in his class. He gritted his teeth, adjusted his eyeglasses, and began the lecture: "Sir."—*Wall St. Journal*.

Higher Education

Wall Street father to college daughter: "And what are you going to study this year in the classic shades?"

"Economic theory and public finance, Dad." A quick gulp of coffee ended the commuting breakfast, and the vanishing coattails flipped back, "Well, if you want to understand the subject at all, take as corequisite a good course in astronomy!"—*Wall St. Journal*.

Stay After School

The teacher had a lot of clerical work to do, so she placed her hat in front of the class of six-year-olds, saying: "Now, children, I want you to look at my hat, and write some nice little sentences about it."

The class set to work, and were silent for quite five minutes. Then a face appeared at the teacher's desk and Edward's voice was heard:

"Please, miss, are there two 'b's' in shabby?"—*London Tid-Bits*.

NO SCHOOL DEBT IN PORT HURON, MICH.

The school district of Port Huron, Mich., is in rather an enviable position as far as outstanding bonded debt is concerned. The district has no outstanding debt of any kind. Arrangements were completed recently when all outstanding bonds were called by the board and their owners paid in full.

Compared to the average school district of this size in the state, Port Huron is indeed fortunate. A total of \$550,000 in bonds and interest has been retired by the district since 1933.

The district is planning to adopt a pay-as-you-go plan which is much to be desired.

PROGRESS IN ARGO

The Argo Community High School at Summit, Ill., has completed a broad summer recreational program carried on under the direction of the physical education staff of the high school faculty.

Under the direction of Superintendent Charles E. Wingo and of the elementary school staffs of the two districts of Summit, Argo and Bedford Park, a phonetic-remedial reading program is being introduced for retarded readers from grades 1 to 12. A co-operative plan of music instruction, both vocal and instrumental, has been established in the 12 grades. Plans are being laid to co-ordinate the physical and health education work for all levels.

The high school plant has been improved by the installation of new cafeteria equipment and by the repainting of the classrooms and library on a scientific color scheme. With the co-operation of the local Public Service Company, an experimental study of artificial lighting is being carried on.

PLAN EDUCATION OF VETERANS

The Evansville, Ind., board of education has received a series of recommendations from the Evansville College Staff and its own administrative officials for the continued education of returned veterans of high school level. These men will hardly be willing to return to high school but will be in need of a distinctly adult type of instruction. These men will fit into the public evening school program and should have available work in various academic and cultural subjects. The offerings of the schools should satisfy any legitimate requests and should encourage these men to develop new interests. The desires of the veterans for industrial and mechanical instruction are already met by the broad vocational program of the Evansville Mechanical Arts School.

SCHOOL FINANCE NEWS

The Cedar Rapids, Iowa, school board has approved an estimated budget for the 1946-47 fiscal year totaling \$1,401,020. The figure is \$82,303 higher than the 1945-46 budget. About 80 per cent of the increase is due to increases in salaries throughout the system.

The Fremont, Nebr., board of education has adopted a 1945-46 budget anticipating expenditures of \$222,285, an increase of \$22,285, and has set the levy at 20 mills, a decrease of three mills. Increased teachers' salaries will cost \$17,000.

The Georgia State Board of Education has recently approved a budget of \$21,000,000 for the public schools of the state. The new budget will provide a 10 per cent salary increase for teachers, a 12-month school term, and the establishment of area trade schools.

SCHOOL-BOND SALES

During the month of July, 1945, bonds for school purposes were sold, in the amount of \$9,749,500. Sales were made in California of \$1,840,000; Ohio, \$3,075,000; Tennessee, \$2,000,000. The average interest rate was 1.48 per cent.

During the same period short-term paper and refunding bonds were sold, in the amount of \$1,067,900.

SCHOOL-BUILDING CONSTRUCTION

During the month of July, 1945, contracts were let in 17 states west of the Rocky Mountains for 17 school buildings, to cost \$1,201,830. Preliminary work on 37 projects was reported, at an estimated total cost of \$5,449,000.

Guide to Products and Services

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American School Board Journal

540 North Milwaukee St., Milwaukee 1, Wis.

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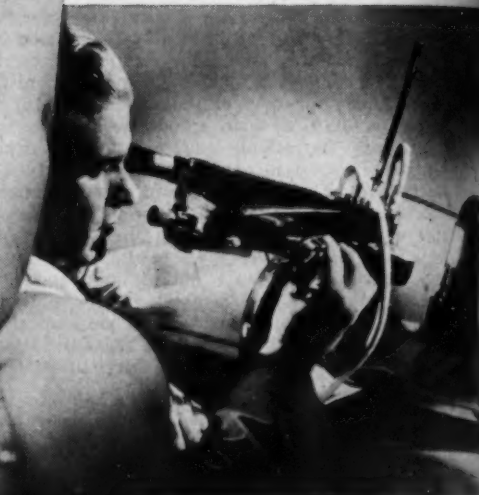
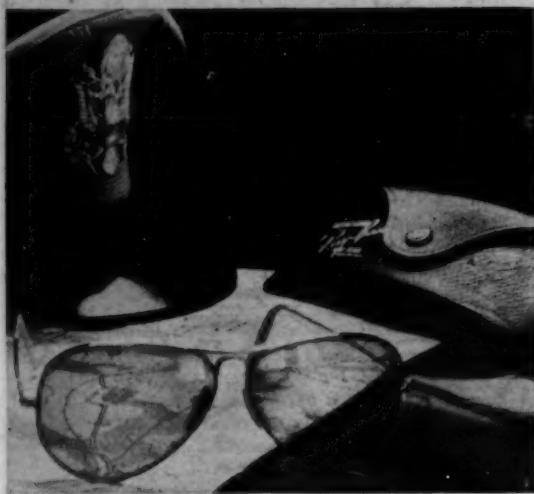
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Of the many specialized branches of science which contribute so much to your life, bacteriology is among the most important. It is the basis of modern medicine and the controlling

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